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The Century Studies in Economics

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THE DEVELOPMENT OF ECONOMICS

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IN

THE UNIVERSITY OF WISCONSIN



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PREFACE

This book is the outcome of the author's experience as a graduate student and as a teacher of graduate students for a period of forty years. That experience has strengthened an early conviction that for the training of an economist the historical approach to the subject is the best, and perhaps essential. In its development economics has passed through several stages, in each one of which the thinking of the past has been influenced and modified by the economic and social conditions of the period and by thinking in allied and sometimes quite remote fields. The significance, scope, and limitations of single doctrines and of systems of economic thought in any period, therefore, can be understood only in the light of their history.

In approaching the study of the subject from the historical point of view the student is confronted by a mass of literature, only a small portion of which is it possible for him to study or even cursorily to examine. How to make the proper selection and to grasp the significance of what he reads are his problems. He is aided in the process of selection by several good histories, but unfortunately these are adequate only for the exceptional person. In reading them the average student gets lost. In spite of classifications and variations in emphasis, the number of authors and books brought to his attention in these histories is so great that he becomes confused and is often unable to get the perspective necessary to enable him to concentrate upon the most significant and important for his purposes and to neglect or to subordinate the rest.

An aid in overcoming this difficulty is supplied by histories of doctrines, rather than of books and authors, but few, if any, of these are sufficiently comprehensive, and, on account of the necessity they involve of segregating one or more of an author's theories from the context in which he placed them, they frequently leave incomplete and even distorted impressions.

In the present book another method of overcoming the student's difficulties is used. It is that of grouping the topics to be studied around the development of the Classical Political Economy of England by considering first, the background of that development in the economic

life and thought of the preceding period; second, the development of the Classical Political Economy itself; third, its early critics; and fourth, attempts to reconstruct the science in the post-classical, including the contemporary, period, and critics of these attempts. In each of these main subdivisions only typical and outstanding authors have been selected for treatment, others being either entirely omitted or discussed in their relations to the former. In this way, it is hoped, better perspective has been achieved, fuller and more complete discussions of the key authors and doctrines of the science have been presented than are to be found in the current histories, and the number of authors and doctrines discussed has been reduced to a compass within the grasp of the ordinary student during the period of time at his disposal. More attention and space than is customary have also been devoted to a discussion of the characteristic features of the economic life of the periods to which the chief stages in the development of the science belong.

The method of treatment has been, so far as possible, objective, the aim being accurately to present the thought of the writer under discussion rather than the author's reaction to it. To this end, quotations have been freely used and critical comments employed chiefly for the purpose of emphasizing vital points. Where an omission of considerable length has been made between consecutive paragraphed quotations from the same work, as has often been advisable, closing quotation marks have been used preceding the omission.

The present form and content of the book are the result of years of class and individual discussions with hundreds of students now scattered all over the world, and its publication is due chiefly to the frequently expressed desire of many of them, especially those in academic positions, to have the subject-matter of these discussions in a form available for their own and their students' use. The author's thanks are due to these students for many helpful suggestions and criticisms.

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THE DEVELOPMENT OF ECONOMICS

CHAPTER I

INTRODUCTION

The remote sources of the science of economics are traceable to two currents of thought, one contributed by philosophers and the other by men of affairs. The beginnings of the former date back at least to the time of the Ancient Greeks. Aristotle and Plato discussed the economic aspects of social problems and also a number of the specific topics which belong to the present-day subject-matter of the science. Their concepts, theories, and speculations, together with those of the Stoics and Epicureans, were passed on to later generations with additions and modifications, the most noteworthy being those of the Roman Jurists, of the medieval Schoolmen, and of early modern philosophers, e.g., Pufendorf, Grotius, Hobbes, Locke, Hume, and Hutcheson, the teacher of Adam Smith.

In its early phases the other current of thought is not so easily traceable, but from the sixteenth century on it increased in volume and significance. It consists of the observations and thinking of business men, legislators, and other people connected with government, stimulated by the economic problems with the solution of which they were concerned. Often crude, naïve, and lacking the systematic character of the work of the philosophers, the thinking of these men dealt with the interpretation of the actualities of their contemporary lives and was frequently keen and illuminating.

In the second half of the eighteenth century these two thought-currents coalesced in the writings of the Physiocrats and Adam Smith, and economics emerged as a distinct and independent discipline. In its subsequent development it received accessions from both philosophy and men of affairs and was influenced by other departments of human knowledge, which, like it, were originally included in the mother science, philosophy.

On account of the relatively advanced stage of economic development attained by England near the end of the eighteenth century and the superior merits of Adam Smith's *Wealth of Nations*, first published in 1776, the main current of the development of economics

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flowed through that country, and it is by this current that we shall be guided in our exposition. In its early course it was marked by *The Wealth of Nations* and by books written by David Ricardo and John Stuart Mill, but the stream of thought expounded in the writings of these men was fed by smaller ones, some of which had their origin in earlier periods and others in the period contemporary with these authors.

Our first task will be the explanation of the sources from which Adam Smith derived his materials and his inspiration. Of these the chief were the Mercantilists and the Physiocrats and the economic life of the periods in which they lived. We shall then treat in order Adam Smith, the period intervening between the publication of *The Wealth of Nations* and the close of the Napoleonic wars, Ricardo and his *Principles*, the period intervening between that publication and Mill's *Principles*, and then John Stuart Mill, in whose writings the so-called classical political economy was expounded in its most complete form. In subsequent parts of this book we shall discuss the chief criticisms that have been passed upon this system of thought and some of the attempts to reconstruct the science since the close of the classical period.

PART I

THE BACKGROUND OF THE CLASSICAL
POLITICAL ECONOMY

CHAPTER II

THE MERCANTILE SYSTEM

The so-called mercantile system flourished in the seventeenth century and the early part of the eighteenth, though its beginnings date further back and remnants of it still linger. It connotes a national policy and a system of doctrines, both of which were at least partially represented in the practices and the literary output of all the nations of Europe. We shall consider it first in the first mentioned aspect, namely, that of a national policy.

A. CONSIDERED AS A NATIONAL POLICY

Professor Schmoller found the key to the explanation of this aspect of the system in the development of the national economies of the various European states. These succeeded (in order of time) territorial, municipal, tribal, and family economies, each representative of a certain stage in the history of European civilization, and each produced by the struggle of contending forces, a higher and broader organization in each case subordinating to itself lower and narrower ones. "The essence of this system," he says,¹ "lies not in some doctrine of money, or of the balance of trade; not in tariff barriers, protective duties, or navigation laws, but in something far greater, namely, in the total transformation of society and its organization, as well as of the state and its institutions, in the replacing of a local and territorial economic policy by that of the national state." More specifically he says,² "The whole internal history of the seventeenth and eighteenth centuries, not only in Germany but everywhere else, is summed up in the opposition of the economic policy of the state to that of the town, the district, and the several estates; the whole foreign history is summed up in the opposition to one another of the separate interests of the newly rising states, each of which sought to obtain and retain its place in the circle of European nations, and in

¹ Gustav Schmoller, *The Mercantile System and Its Historical Significance* (New York: The Macmillan Company, 1896), p. 51.

² *Ibid.*, p. 50.

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that foreign trade which now included America and India. What was at stake was the creation of real *political* economies as unified organisms, the center of which should be, not merely a state policy reaching out in all directions, but rather the living heart-beat of a united sentiment."

The development of these national economies followed a similar but not an identical course in each of the countries of Europe, and its complete exposition would require the writing of the economic history of Europe from at least the end of the middle ages, a task beyond the scope and purpose of this work. We shall attempt merely a brief summary of the results attained.

B. MERCANTILISM IN ENGLAND

Beginnings of economic processes, interests, and policies that transcend local boundaries and approximate national importance may be traced in England back a considerable distance into the middle ages. Foreign commerce, for example, was of national concern from a very early period, and its promotion and regulation frequently occupied the attention of kings and Parliaments before the so-called mercantile era. The same may be said of some phases of industry and agriculture. Many facts dating from earlier periods may also be cited, illustrative of the consciousness that purely local regulations and local provisions for wants were inadequate and that cooperation in these matters was needed on even a national scale. The fact is that the national economy of England was a gradual growth, and it is difficult, perhaps impossible, to determine precisely when it is proper to speak of it as an accomplished fact. All that may safely be affirmed is that up to a certain time localism or provincialism dominated in economic matters, and the national point of view, national interests, and national regulations played a subordinate rôle. The two tendencies or forces, more or less in conflict with each other, existed side by side for centuries with localism in the ascendant. Nationalism gradually grew in importance and power, however, in each succeeding generation gaining greater and greater victories over localism, until finally it dominated the economic life of the nation. This was the era of mercantilism.

A characteristic feature of localism at the height of its development was the control of economic life by the municipalities and the manors. The chief organs of that control in the case of the towns were the guilds and the governing body or city council. The former were corporate bodies into which the various branches of industry and commerce were

organized. Instead of exercising the individual initiative and freedom with which we are familiar nowadays, the workers in each trade, including both masters and men, were organized into one body which in its corporate capacity controlled the details of the business. In the process of time the most important of these developed elaborate codes regulative of the kinds and qualities of the goods to be manufactured, the prices to be charged, the wages to be paid, the hours to be worked, apprenticeship, the relations between masters and men, etc., etc.

The governing bodies of the towns were dominated by representatives of these gilds, but to the authority of these governing bodies the gilds were themselves subordinated. By them their regulations were enforced, their differences settled, and their interests protected. Sometimes, especially in the latter part of the period, these governing bodies took the initiative in legislating regarding industrial and commercial matters. In outside affairs they acted for the entire body of citizens and for the gilds, regulating commercial relations with other towns and intermediating between their citizens and higher authorities, such as kings, princes, ecclesiastical dignitaries, and other persons belonging to the feudal hierarchy.

In a similar manner the country life of the period was dominated by the manorial organization of which the lords of the manors were the heads. By them and their subordinates the industry of agriculture, as well as most of the other trades essential to the maintenance of country life in that day, were regulated.

To a great extent the manors were self-supporting. Only a comparatively few commodities were purchased at the fairs and in the markets of the towns. To a much greater degree than at present the towns were also self-supporting, the surrounding lands being owned and worked by their citizens under much the same kind of supervision as that to which artisans were subject. Municipalities and manors were, of course, subordinated to the state represented by the king and his government, but the peculiarity of this stage is that this higher authority did not dominate economic affairs. These were in the main locally controlled. For the most part the king lived off his own, that is to say, he was a great landlord, the greatest landlord in the kingdom, and as such was lord of many manors, the income from which constituted his chief means of support. He received various dues of a feudal character from cities, towns, and other lords of manors, and was with increasing frequency given special grants. He collected duties on the frontiers and frequently intervened in commercial deal-

ings with foreign countries. He also exercised authority over the currency, granted charters to towns, settled intermunicipal and inter-manorial quarrels, and sporadically interjected his authority into all kinds of affairs which normally he let alone. But in spite of all this, the local authorities really dominated the economic life of the time.

The Protestant Reformation and the opening-up of the New World were potent factors in the breakdown of this system of localism and in the substitution for it of a real national economy. England's revolt from the Church of Rome was accompanied by the confiscation of the monastic lands, the disposition of which placed in the hands of the state a mighty agency for controlling the landed aristocracy and for breaking down the localism of the manors. England's position as the leading Protestant state of Europe made her the protector of Protestant refugees from the Continent and was the means of adding to her population a considerable number of industrially efficient people whose handling and incorporation into the industrial life of the nation was a national, and not a local, affair. England's part in the Reformation and in the wars which grew out of it enormously increased the financial needs of the government and forced a large increase in its revenues, a result accomplished only by strengthening the grip of the state on the financial resources of the country, which were in the possession of private individuals. The exploitation of India and America constantly called for state aid and regulation and ultimately became the field of extensive governmental operations.

The international rivalries inherited from the age of the Reformation and strengthened by the opening-up of the New World were also potent forces in the movement under consideration. England had to fight, or to be in constant readiness to fight, not only to get her share of the New World but to preserve her national existence. To this end she had to have a fleet and an army or the materials out of which these could be quickly made. The production of sailors, soldiers, and ships and their equipment and maintenance was essentially and chiefly an economic problem, the solution of which required the manipulation of the agriculture, industry, and commerce of the country for national purposes and on a national scale.

Coöperating with these influences were others of local origin. By the sixteenth century self-interest induced the towns voluntarily to modify some of their monopolistic features, especially that one which excluded outsiders from the privileges of their markets or burdened

them with excessive tolls. When the merchants of nearly all towns found themselves sufferers from such regulations, they naturally favored reciprocity and mutual toleration, and these results were secured by intermunicipal treaties and the repeal or lax enforcement of the regulations. This movement was favored by the gradual development of the territorial division of labor which made intermunicipal trading advantageous and in some cases necessary.

The industrial organization of the towns was also gradually weakened by conflicts of interest between townsmen themselves and the oppression of the weaker trades by the stronger, and by the growth of domestic industries. Increasing interference of the central government in town affairs was invited by these conditions, and the power of resistance to it was weakened. The growth of a merchant class in London and some of the other large towns also contributed to the same result. The interests of this class extended beyond the boundaries of the town in which they lived and were promoted by the breaking-down of local trade barriers. The power of this class grew rapidly in and after the sixteenth century.³

During the same period manorial exclusiveness was also breaking down as a result of the substitution of sheep culture for tillage. To a greater extent than ever before, this change made the agricultural population dependent on the towns where their markets were, and the social problems which the enclosures raised required an increasing amount of interference of the central government in manorial affairs.

Under the Tudor sovereigns the machinery for the national control of agriculture, industry, and commerce attained a high degree of development. Legislative enactments initiated by the Council of State, confirmed by Parliament, and executed by justices of the peace extended this control to the vital parts of the economic organism. The most noteworthy of these enactments were the statute of apprentices of 1563 and the poor law of 1601.

The former act included apprenticeship regulations similar to those previously enforced by the guilds and made them applicable to all manufacturing industries throughout the nation, and provided for the payment of a suitable wage by making it the duty of the justices of the peace to make such regulations as would "yield unto the hired person, both in the time of scarcity and in time of plenty, a convenient

³ W. J. Ashley, *An Introduction to English Economic History and Theory* (New York: G. P. Putnam's Sons; London: Longmans & Co., 1893), Part II, secs. 29-30.

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proportion of wages." These assessments were to be made by the justices in quarter-sessions, and by them revised as often as necessary for the attainment of the objects in view.

This legislation assumed that all able-bodied persons could and should secure employment. Those who did not were to be adjudged vagrants and, according to a statute passed in 1598, were to be openly whipped "and sent back to their places of residence where they were to be put to work," workhouses or houses of correction being provided for the purpose in case service could not be found for them in other ways.

The poor who were unable to work were provided for by the act of 1601, which directed the justices to appoint overseers to attend to their relief and to tax the property of the parish to the extent necessary to raise the funds required.

Other enactments aimed to limit and control the enclosure of land for sheep culture and to regulate the relations between the lords of the manors and their tenants or dependants.

By the seventeenth century a national commercial and industrial organization had developed, the chief organs of which were middlemen who intervened between producers and consumers and between different classes of producers. Among those of chief importance were the wool-staplers, the clothiers, the drapers, and the foreign trading companies. The wool-staplers purchased the farmers' wool, their most important staple, and sold it to manufacturers or foreign merchants. The clothiers acted as middlemen between the carders, spinners, weavers, and other handicraftsmen engaged in transforming the wool into cloth. They purchased the wool from the staplers, delivered it to the carders and spinners, distributed the yarn among the weavers to be woven into cloth, and then placed the cloth in the hands of the "fuller," "walker," or "tucker" to be fulled and cleansed. The spinners, carders, weavers, and fullers were scattered throughout the hamlets and villages as well as the cities of the country, in many, perhaps most cases, doing agricultural work as a main or a side occupation. The drapers purchased the cloth and sold it to consumers or to foreign merchants; some of them were themselves connected with one of the trading companies. Foreign commerce was chiefly carried on by these latter organizations, to each of which a charter had been granted conferring the exclusive right to trade in a specified part of the world. The Eastland Company, for example, had the exclusive right to trade with Scandinavia and the Baltic region; the Russian Company, with

Russia; the Merchant Adventurers, with the Netherlands; the Levant Company, with the Mediterranean region; the Guinea or African Company, with Africa; the East India Company, with the countries of Asia; and several other companies with portions of the American field. At the beginning of the seventeenth century France, Spain, and Portugal were the only countries with which trade could be carried on by an Englishman not a member of one of the companies.⁴

The attitude of the English monarchs of the seventeenth century toward their realm may be compared to that of the lord of a great estate or to the head of a great business. It was thought to be their business to develop it, to watch over and provide for the details of its management, and to use it for the accomplishment of such purposes as their wisdom and royal duties might dictate.

The purpose for which this great estate was actually used was largely determined by the international rivalries of the seventeenth century. These were the natural outcome of the period of the Reformation. In the course of its struggles hostility between nations was aroused, depredations committed which called for reprisals, relative economic resources and military and naval strength tested, and military ambitions aroused. The discovery and exploration of the New World and the opening of the Cape route to India also contributed to the same end. The desire for the exploitation of the vast resources of these regions was universal, and different nations contended for them like athletes for a great prize.

During this period of intense rivalry it was the ambition of each of the leading nations to outdo the others, to become the dominant member of the European family, and to secure each for itself the lion's share of the territory and wealth of the New World. To this all other ends were subordinated and the power of the nation employed. In attempting to realize it each nation was confronted by difficult problems to the solution of which it bent its energies. Among these the most important were the development of strong armies and navies, a large and vigorous population, and the production of the material means for their support. Force was the only efficient means which could be employed, and strong armies and navies were therefore necessities. The nation that did not have one or both of these could scarcely hope to maintain its independent existence, to say nothing of reaching the goal of its ambition.

⁴ Clive Day, *A History of Commerce* (New York: Longmans, Green & Co., 1907), pp. 202-204.

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On account of her situation, the acquisition of a strong navy was of paramount importance to England, and consequently the problem of producing one was one of the chief objects of her endeavor during the period under consideration. There are two conceivable methods of navy production, one that of the construction of warships and the other that of the development of a merchant marine which can be transformed into a fleet of warships in case of need. The latter method alone was possible for England in the sixteenth and seventeenth centuries, and hence the development of a merchant marine became an important feature of her policy.

As a means of such development foreign commerce was essential. Englishmen could only be induced to build, equip, man, and operate ships if profitable employment for them were found. Fishing was another industry in which ships and seafaring men were employed. The encouragement of foreign commerce and of the fishing industry therefore occupied the attention of English statesmen.

Many means to these ends were employed, among them the colonization of the New World, navigation acts, trading companies, commercial treaties, and the development of manufacturing industries. The last-named was important, since nearly every European nation at that time produced a sufficient quantity of the staples of agriculture for its own consumption. Furthermore, manufactured articles contained greater value for their bulk, were more easily transported, could be more easily increased in quantity and variety, and (what was perhaps of equal or even greater importance in a nation like England with a very restricted territory) might furnish the means for the employment and support of a large and ever-increasing population.

Colonization of the New World was important because it promised a market for English manufacturers and a supply of raw materials for their consumption, a supply of precious metals under direct control, and occupation for English ships and sailors. The navigation acts were designed to ensure this latter result, and the commercial treaties aimed at securing and enlarging the markets for English goods as well as at enabling her to carry out her balance-of-trade policy, to be described later. The trading companies were also a necessary instrument for the promotion of colonization and foreign trade. Individual resources were inadequate for enterprises of this character. Cooperation of numbers of traders was needed for protection en route, for the overcoming of hostile peoples in the countries in which trade and colonization were

prosecuted, in the maintenance of colonists and trading-posts, and in the administration and development of the vast territories which were often granted together with the trading privileges.

For the encouragement of manufactures and the execution of the other details of this policy a large number of other measures were devised and put into operation. As in previous centuries England continued to serve as a refuge for the oppressed. In this capacity she welcomed the Huguenots when they were expelled from France and used them for the building-up of her silk and other industries. Dutch immigration was fostered for the same purpose. Special privileges were also granted in the form of patents and monopolies giving the recipients exclusive privileges of manufacture.

Thus the desire to build up a strong navy as an instrument of national defense and exploitation furnishes the key to a large part of the economic history of the time. For much of what remains the explanation may be found in another feature of the national policy, namely the attempt to maintain a favorable balance of trade.

For the acquisition and maintenance of the ships and men which the naval and military policies required there was needed a continuous increase of the national revenues and of the volume of precious metals in circulation. By this time England had definitely passed into the stage of money economy. Every increase in the revenue needs of the state, therefore, correspondingly increased the need for coin, and the state's needs in this particular could not be met unless the volume of the circulation was constantly enlarged.

This need for coin had another source, namely the prosecution of military, naval, and commercial operations in foreign countries. Without the means of credit which we enjoy at the present day, such operations could only be conducted by means of stocks of the precious metals carried about from place to place by naval and military officers and merchant adventurers. The only alternative was the carrying from home of such quantities of supplies as would suffice for the entire expedition, a practical impossibility in most cases.

For a nation like England, which was without gold and silver mines, there was but one solution of this problem, namely such a manipulation of the foreign trade of the country as would result in bringing in a constantly increasing quantity of the precious metals. To accomplish this the people of the nation must be induced to sell to foreigners an aggregate quantity of goods of greater value than those purchased.

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The balance would needs be paid in coin. The maintenance of such a favorable balance thus became a primary feature of national policy.

The means employed to this end, generally speaking, were import and export duties, bounties, trade treaties, sumptuary laws, and colonies. Import duties of prohibitive height were appropriately levied on goods of which the home production should be encouraged or the consumption discouraged, and freedom of trade was allowed, with import bounties in extreme cases, for goods, like the raw materials of manufacture, incapable of home production or not producible in sufficient quantities. For the encouragement of exportation, bounties were often employed, and for its discouragement export duties. It was, of course, desirable to foster the exportation of manufactures of high intrinsic value and to discourage the exportation of raw materials of manufacture. Favorable treaties of trade were made whenever possible with nations whose commerce with England promised possibilities of manipulation of the right sort, it being of course easy for the measures of one nation to be nullified by those of another with similar aims. Sumptuary laws were freely used to discourage or prevent absolutely the consumption of certain articles, like French and Portuguese wines, the importation of which would swell the wrong side of the international balance sheet and which were likely in no way to contribute to the increase of exports.

The importance of colonies in the execution of this policy is obvious. They could be used to furnish a sure market for English manufacturers and to supply them in turn with such raw materials as England herself could not produce. They could also furnish occupation for English ships. In order to ensure their employment for these purposes, the navigation acts were passed and other measures devised to prevent the colonists from pursuing their own self-interest to the detriment of the national policy.

These uses of colonies, like the other measures above described, were designed to promote a favorable balance of trade. Another service capable of being rendered by certain of them was the direct supply of the precious metals from their gold and silver mines. In this way Spain had profited greatly from her South American colonies, and her example stimulated the other states to acquire for colonization purposes territory rich in this kind of mineral wealth and to use every possible means for finding and exploiting such wealth wherever colonies were planted.

C. MERCANTILISM IN OTHER COUNTRIES

Much of what has been said in the preceding paragraphs concerning mercantilism in England will apply without essential modification to France, Spain, Prussia, Holland, and other European states. In all of them national economies dominated by mercantilistic policies developed, but the details of the process and the degree of approximation to completeness varied considerably in the different states.

In France, for example, centralization of control was carried further than in England, but many features of localism, such as provincial tariffs and tolls on rivers and highways, persisted to the time of the Revolution and retarded the development of economic processes of national scope and of unity and community of feeling and sentiment concerning economic matters. In Germany, Prussia was the only state large enough to give adequate scope to the operation of nationalistic forces, though in the smaller states and free cities these forces did operate on a small scale and to a limited extent. In Spain centralized control attained a high degree of development, but it was not directed wholly or even chiefly by economic motives, and consequently the national economy experienced a one-sided and stunted development. In Holland the rivalries of great families and factions prevented the unity of control and direction essential to the symmetrical development of the national economy, and there was also a dearth of national resources. The manufactures and agriculture necessary to the support of her commerce were therefore lacking. On account of territorial limitations, peculiarities of organization, and the vicissitudes of their political life, the Italian states and cities also lacked some of the elements necessary to the development of symmetrical national economies.

D. THE THEORY OF MERCANTILISM

We must now turn to the second aspect of the mercantile system mentioned at the beginning of our discussion, namely its doctrinal side. This will appear in a complete form only if one seeks a justification of it in detail, a task which no contemporary undertook. For our purposes, however, the complete theory is important, and we shall attempt its construction even though no one can be accused of having held it in its entirety.

Of prime importance is what may be called the *theory of national-*

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ism. This is the opposite of the theory of individualism widely held in our day. According to the one, the nation is everything; according to the other, the individual. According to the latter, government and other social institutions are simply means to the attainment of individual ends. For example, I as an individual desire happiness and well-being, and riches as a means thereto. Government and social institutions exist for the purpose of helping me to attain these. According to the other theory, the nation is the unit of consideration; individual persons constitute simply its constituent parts and are treated as subordinate to it in every respect. They may be compared to the hands, arms, legs, and various other parts of the body in their relation to the person. They have no interests apart from the larger whole.

When the ideals of the nation were military aggrandizement and the exploitation of new countries, a necessary consequence of this doctrine was the conviction that wages should be low and food cheap. Low wages were thought desirable because they diminished costs of production, made possible the underselling of foreigners in their own markets, and thus contributed toward the enlargement of the volume of exports. The fact that they would lower the well-being of the masses, thwart their life purposes, and prevent their making the most of themselves did not seem to be a matter of great concern. To be sure, it was recognized that there was a limit below which wages should not be pushed, namely that which was essential to healthy, vigorous, animal life, but this limitation was recommended not in the interests of individuals but because a healthy, vigorous population was necessary for the maintenance of efficient armies and navies.

The attitude toward cheap food and cheap raw materials was determined by the same considerations. The interests of the classes who produced these commodities were not to be considered, but that of the nation. Cheap food was considered desirable because it made possible low wages, and cheap raw materials, like low wages, contributed toward the lowering of the cost of production of manufactured products.

The mercantile theory of population was also simple. According to it, the more rapid the growth of and the larger the population of a country the better, because military power was directly proportional to population and a rapid increase in the number of the people meant a rapidly increasing supply of labor, which was also essential to low wages.

If a mercantilist had undertaken to expound the relative importance

of the different industries of a nation, as later economists did, he would have put foreign commerce at the head of the list and agriculture at the bottom. As a reason he would have explained the relation between foreign commerce and naval power. Of course this statement does not mean that mercantilists considered agriculture unimportant, but simply that they did not consider it as contributing so directly to the strength and greatness of nations as does foreign commerce. In their scheme manufacturing industry occupied a middle place, being more closely connected with the supreme national interest than agriculture, but less so than foreign commerce, to which, however, it was a necessary ally and deserving, therefore, of the fostering care of government.

Regarding the precious metals, the theory implied (and in this case held) was that they constituted the most important category of national wealth. The reasoning here would have turned on their relation to the national economy as an internal and external medium of exchange. With them in possession in sufficient abundance the state could easily satisfy all its wants because they were universally exchangeable. This could not be said of any other category of wealth.

The balance-of-trade theory was a natural consequence. If the precious metals are of supreme importance, a nation should strive to accumulate them, and—since you can never have too much of a good thing—in as large quantities as possible. If mines are not available, and they were not in the cases of the leading nations of Europe at the time, Spain alone excepted, foreign trade must bring them in; and to ensure that, a favorable balance of trade must be maintained.

The theory of protection to manufacturers implied in the practice of this period is quite different from that held nowadays. It was not the interests of the laboring class that were considered, nor the importance of a home market to producers or of diversified industries to all classes, but the supreme importance of a favorable balance of trade and the necessity of high duties on certain products as a means of lowering the debit side of the international balance-sheet. The influence of duties in encouraging the manufacture of certain goods was also considered, but only to the end that such goods might be exported and thus help to swell the credit side of the balance-sheet.

A theory of the relation of the state to industry was also implied in the practice of mercantilism. It might be called the *entrepreneur theory*. In his relation to the nation the sovereign may be compared to a great landlord or the head of a great business. It is his duty to see

to it that the nation's resources are developed to the extent required by the needs of the state, and to this end he must supervise its various industries, checking this one and promoting that as circumstances may demand. There was nothing that he might not undertake directly, and any interference with private enterprise was justified if the realization of the state's policy was at stake. Indeed, men and property were simply tools to be used as needed.

The theoretical aspects of mercantilism were reflected in the literature of the period but imperfectly. No writer of the time treated the subject systematically, and many writers expressed ideas which were out of harmony with mercantilism, though in the main their thoughts ran in the ordinary channels.

The so-called mercantile literature was fragmentary in the sense that it treated certain aspects of the subject only. A fruitful cause of literary production was the East India Company, whose interests frequently clashed with those of the government as then conceived and with those of other traders. In defense of its plans and projects it was able to command some of the best talent of the time. Thomas Mun, who had acquired wealth as a merchant in the Levant trade and became a member of its board of directors in 1615, defended its practice of exporting the precious metals in *A Discourse of Trade from England into the East Indies*, published in 1621, in which the balance-of-trade doctrine was fully developed. Another cause of literary activity along mercantile lines was Holland, which led Europe in commercial matters during the mercantile era. In many respects she served as a model to other nations, but as an aggressor and thwarer of their plans she also provoked discussion and literary production. Among the writings which may be attributed to this cause are Mun's *The Petition & Remonstrance of the Governor & Company of Merchants of London Trading to the East Indies*, published in 1628; Temple's *Observations upon the United Province of the Netherlands* (1672), Raleigh's *Observations Touching Trade and Commerce with the Hollander and Other Nations* (1603), and Child's *A New Discourse in Trade* (1690).

Beside the books, or rather pamphlets, already mentioned, in 1630 Thomas Mun published *England's Treasure by Foreign Trade*, addressed to his son, which is probably as good a sample of a typical mercantile book as could be found. Adam Smith so refers to it, and most historians of political economy have so regarded it. Other noteworthy writers were Sir Josiah Child, Sir Thomas Culpepper, Sir

Dudley Digges, G. De Malynes, E. Misselden, and John Pollexfen.

France produced some of the most noted of the mercantile practitioners, among them Maximilian de Béthune, Baron de Rosny, and later Duc de Sully, one of the chief advisers of King Henry IV, and Colbert, Louis XIV's famous finance minister. While both these men were administrators primarily, they left in literary form expositions of their ideas on economic subjects. During his retirement subsequent to the death of Henry IV, Sully had drawn up by his secretaries a series of *mémoires*, which, under the title *Économies royales*, were published in part in 1638 and in full in 1665. They are based upon letters which passed between him and the king, reports and accounts, and papers and documents which he took with him into retirement, and upon his recollection of events. They constitute in no sense a treatise on political economy, but they reveal the principal economic results of the reign of Henry IV and the reasons which actuated the King and his great minister. It was during that reign that the foundations were laid for the national economy of France which later was developed on more strictly mercantilistic lines. The *Économies royales*, therefore, reflect that stage of thought which was contemporary with the growth of the great national economies rather than the one in which these economies were directed into strictly mercantilistic channels.

The literary remains of Colbert are of the same general character as those of Sully in that they consist of letters, instructions, and memoirs.⁵ They differ from Sully's, however, in the extent to which they reflect mercantile doctrines. Colbert was the chief executor of the mercantile policy of France, and among his letters, instructions, and other papers may be found expositions and defense of nearly every feature of it. Much more completely than the English writers he reflected the doctrines of nationalism and of the *entrepreneur* relation of the state to industry. To a greater extent than in any other country these doctrines were realized in the practices of France during the reign of Louis XIV, and for this fact Colbert was largely responsible. Louis XIV aspired to be not only absolute sovereign in France but the dictator of Europe, and he fully realized that foreign commerce and command of the world's supply of the precious metals would assist in the accomplishment of his purposes.

Another French mercantilist worthy of mention is Montcretien de Watteville, who published in 1615 a book entitled *Traité d'économie*

⁵ The complete collection published by Pierre Clement during the years 1860-1871 fills seven large volumes.

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politique, probably the first book ever published bearing that significant title. The subject-matter was arranged under the four following heads:

"Part I.—Economic Arts, their order and their utility, the regulation of manufactures and the distinction between the various trades or handicrafts from the point of view of their profitableness to the community."

"Part II.—Domestic and Foreign Commerce."

"Part III.—Navigation, Colonies and Oriental Trade."

"Part IV.—Advice to the Prince on a variety of topics, such as piety, charity, malice and the finances."

While this writer did not display great originality and while some of his ideas were in advance of and opposed to mercantilism, in the main he was a mercantilist and his treatment of the subject was more systematic and complete than that of most writers.

The mercantile writers of Germany were Cameralists, the name applied to a much larger group of economists, including some belonging both to earlier and to later periods.

The word *camera*, whence the name of the group was derived, in the early middle ages meant the place where the royal treasure was kept, and later the treasure itself. German princes appointed special officers to administer their financial affairs, and these were called *camerarii*. In the process of time these *camerarii*, especially the ablest among them, developed rules and regulations for their business, and, when the financial affairs of princes expanded into those of states, these constituted the political economy of the time, a political economy, however, in which political, juristic, technical, and economic ideas were mixed. This body of knowledge in Germany is called *Kameralwissenschaft*.

During the mercantile period *Kameralwissenschaft* was thoroughly saturated with mercantilistic ideas, although few of the Cameralists were pure mercantilists. Typical writers of the period were Johann Joachim Becher, Philipp Wilhelm von Hornig, and Wilhelm von Schröder.

Becher was at one time a court physician and professor of medicine in Mainz, whence he went to Würzburg, and later to Vienna. At the two latter places, he was connected with the *camera* of the reigning sovereigns. He wrote on natural science as well as *Kameralwissenschaft*, his chief work in the latter field appearing at Frankfurt in 1668 under the title *Politische Discurs von den eigentlichen Ursachen*

des Auf- und Abnehmens der Städte, Länder und Republiken, in specie, wie ein Land Volkreich und Nahrhaft zu machen und in rechte Societaten civilen zu bringen. In this book ⁶ he defines a city as *eine volkreiche, nahrhafte Gemeine* and defends the following fundamental propositions: The more populous a city, the more powerful it is; but in order to be populous, it must be supplied with an abundance of nourishment; the membership of a community consists of (a) those who serve it and are supported by it, for example, government officers, clergy, learned men, physicians, apothecaries, soldiers, etc.; and (b) those who really constitute it, namely, peasants, handicraftsmen, and merchants. These three classes are essential each to the other. In explaining their mutual relations, however, he makes the following argument: "Consumption is the soul of the three classes, the only bond which holds them together and enables them to live by each other. It is on account of consumption that the merchant class is so necessary in a community, however large the peasant class may be. . . . Since the nourishing of a community can only be accomplished through the trading [*Verhandlung*] and turning into money [*Versilberung*] of goods . . . everything which hinders these operations hinders and weakens the populousness which results from it."

Regarding the importance of a supply of the precious metals he says: "All the money in a country should be kept, and continually more brought from foreign places, since money is the soul and the nerves of a land." In explanation he adds that money helps in the employment of men and in the exchange of their products. He speaks of hoards of the precious metals as the foundation pillars of all classes. "On them lives the Handicraftsman, on him the Peasant, on him the Prince of the land, and on all these the Merchant."

The greatest evils to be combated in a land are *Monopolium*, *Polypolium*, and *Propolium*, since the first hinders populousness, the second the nourishing of a community, and the third the binding of the community together. Monopoly interferes with populousness by making a few rich and the many poor; *Polypolium* interferes with the nourishment of the community by interfering with the equilibrium between the different trades or branches of industry and commerce, i.e., by bringing more people into a trade than can live from it; and *Propolium* promotes enmity and opposition among buyers and sellers, and thus tends to rend the community asunder.

⁶ The quotations which follow are from Wilhelm Roscher, *Geschichte der National-Oekonomie in Deutschland* (München, 1874), pp. 273-277.

As a means of preventing these and other evils and of curing the ills of states, Becher favored the strict regulation by the state of all commercial intercourse, and he discussed the details of such regulation. When he comes to foreign trade, he recommends the usual mercantilistic regulations and gives mercantilistic reasons for them.

Philipp Wilhelm von Hornig was a counselor and minister of the cardinal Bishop of Passau, who wrote a book of great repute in its day, entitled *Oesterreich uber alles, wann es nur will*, in which among other things he maintained the proposition that the power of a nation depends primarily upon its means as compared to those of its neighbors. Consequently in order to hold her own with or to rise superior to England, France, and Holland, Austria must adopt the measures which had made those nations great. In the discussion of these measures he showed himself to be a thoroughgoing mercantilist, particularly in his views on the relation of the precious metals to the interests of states. His chief thesis, however, was self-sufficiency, and he therefore appreciated the importance of other forms of wealth.

Wilhelm Freiherr von Schröder was in the service of Austria as conductor of a factory according to plans outlined by Becher. He wrote several books, the most noteworthy of which was entitled *Fürstliche Schatz und Rentkammer*, which was published in 1686. He was a strong advocate of absolute monarchy and admirably set forth the mercantilistic view of the relation of a sovereign to his people, in the following passage: "A Prince is like a housefather. Now a housefather must fertilize and plough his fields if he would reap a harvest therefrom. He must well stock his pond if he would have fish. He must feed his cattle if he would slaughter them, and well fodder his cows if he desires them to give much milk. Thus a Prince must first help his subjects to a good living, if he wishes to take anything from them."⁷

In discussing the subject of national wealth, he said: "The land becomes richer as money is brought into it, either out of the earth or from any other source, and it becomes poorer as money flows away from it. The wealth of a land must then be estimated according to the amount of gold and silver that it contains." The usual way to bring gold into a land is through foreign trade, "the gain from which comes from the surplus which others have to buy from us, and the loss, from the lack of indispensable things which necessity forces us

⁷ This and the following quotations taken from Roscher, *op. cit.*, pp. 295 and 296.

to buy from them. . . . The most fruitful land cannot be esteemed in the least unless it has commerce, a superfluity of products being a blessing only when we can turn them into money through our neighbors."

His other doctrines were strictly derived from these—to him—fundamental principles and were for the most part narrowly mercantilistic. His treatment of banking, however, may be cited as an exception to the rule. On this subject his views were quite modern and much in advance of his time.

The most noteworthy of Italian mercantilists is Antonio Serra, who in 1613 published *Breve trattato delle cause che possono fare abbondare gli regni d'oro e d'argento dove non sono miniere*. In this book mercantile doctrines were quite systematically developed, and the date of its appearance is earlier than that of any other equally systematic and comprehensive treatment of the subject. On this account it deserves especial attention, although it is probable that it did not directly influence the other writers who have been mentioned.

From the foregoing discussion the reader will see that it is difficult to put the theory of mercantilism, as it was reflected in the literature of the subject, into the form of generalizations. Roscher summed up the matter by saying that mercantilistic writers tended to overestimate the importance of (a) a large and dense population, (b) the amount of money in a country, (c) foreign trade, (d) manufacturing, and (e) the state. Sufficient evidence of the justification of this summary has been adduced in the preceding pages, and it is probably not worth while to attempt to go further. The arguments used in support of the propositions in which these tendencies are reflected were far from identical in the different writings, though there was much similarity between many of them, especially those pertaining to the money supply and foreign trade.

Criticism of the mercantile system in either or both of its aspects would be easy but useless. Its defects as an economic policy of universal application or as a body of doctrine to guide statesmen and economists are obvious to present-day students. When considered with reference to the problems of the time in which it flourished, however, it is difficult if not impossible to find fault with the system. It certainly played an important rôle in the history of European civilization. It helped to build up the great states of England, France, and Germany and was a most efficient means of economic progress in the sixteenth

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and seventeenth centuries. It was also a great stimulus to reflection on economic matters and in this capacity contributed toward the progress of the science of political economy along lines which we shall subsequently indicate.

CHAPTER III

THE REACTION AGAINST MERCANTILISM IN FRANCE

While well adapted in many ways to the development of the European states at the stage in their history described in the preceding chapter, at a later period the mercantile policy became a hindrance and an obstacle. This stage was reached in the last half of the eighteenth century and was accompanied by criticism, both of the mercantilistic policy and of the theories and arguments by which it was supported, and by new systems of thought. The conditions which were responsible for this new stage of development were not everywhere identical and may therefore be best considered separately, at least in the cases of France and England, the two countries which, during the period under consideration, produced systems of thought which influenced the development of the science of political economy.

During the later years of the reign of Louis XIV in France conditions developed which resulted in a storm of criticism against the economic policy which he had pursued under the leadership of Colbert. These conditions are vividly described by Taine in his *Ancien Régime*.

A. TAINÉ'S ACCOUNT OF CONDITIONS¹

About the time of the Revolution, Taine tells us, the total population of France was about 27,000,000, of which one one-hundredth or 270,000 belonged to the privileged classes, that is the nobles and the clergy, numbering respectively about 140,000 and 130,000. Of the nobles there were from 25,000 to 30,000 families, and the clergy included about 23,000 monks in 2,500 monasteries, 37,000 nuns in about 1,500 convents and 60,000 *curés* and vicars in as many churches and chapels. According to this calculation the higher orders of the clergy numbered about 10,000. That portion of the population which was not privileged consisted of the middle class, or the *bourgeoisie* as the French call it, and the people. Taine does not venture a guess regard-

¹ H. Taine, *Les origines de la France contemporaine* (Paris: Librairie Hachette et Cie, 1899), Vols. I and II.

ing the relative numbers of these two classes. In the former he included merchants, manufacturers, shopkeepers, teachers, lawyers, physicians, officials of all kinds, brokers, and employees. The people, so-called, were mostly peasants, menial servants, and the lower ranks of laborers.

The property of the country was distributed, according to Taine, about as follows²: one fifth of the land belonged to the Crown, one fifth to the communes, one fifth to the people of the country, one fifth to the clergy, and one fifth to the nobility. Of what remained after deducting the public lands and those of the communes, he estimated that the privileged classes owned one-half; and this was much the most valuable half, since it comprised all the great and beautiful buildings, such as palaces, châteaux, convents, and cathedrals, and much the greater part of the valuable movable property of the country, such as furniture, objects of art, and the accumulated masterpieces and treasures of the preceding centuries.

Beside the ownership of the largest share of the property of the country, the privileges of the privileged classes included exemption from the most important taxes and from compulsory military service; the right to exact contributions and services of various kinds from the people who lived upon their estates or in their parishes, a relic of the feudal system, many of the features of which had disappeared; a monopoly of a large number of lucrative sinecures in the civil service, and no small share in the actual functions of local government; and access to the court and the favor of the king, with all the social privileges and financial emoluments that involved.

The middle class stood next to the privileged classes in the matter of the ownership of wealth, and some members of it were equal and sometimes superior in wealth to the great nobles and ecclesiastics. On account of their wealth the members of this class too had been able to buy exemption from the most burdensome taxes and other exactions levied upon the common people. The industry and commerce of the country were in their hands, and in the period of decline which began in the latter part of the reign of Louis XIV and extended to the Revolution the richer and more ambitious members of this class acquired large landed estates.

The agriculture of the country was carried on under the organization imposed by the manorial system. Every industry was organized

² *Op. cit.*, I, 21-25.

into a guild and subjected to the minutest regulations, and commerce was in the hands of minutely regulated companies.

The government of the country was a monarchy of the most absolute kind. Louis XIV's motto, "L'état, c'est moi," well expresses its spirit. Connected with it was a court of great size and magnificence which included the greater nobles and clergy who, in order to comply with its demands, were obliged to leave their estates and take up their residences in the place of the king's abode.

This court occasioned enormous expenditures on the part of both the king and the nobles. Versailles, a city of 80,000 inhabitants, was given over exclusively to its maintenance and display, and hence was a charge upon the nation. Taine described it as follows³: "It was filled, peopled, occupied by the life of a single man; it was only a royal residence, entirely arranged for the supply of the needs and the pleasures and for the service, protection, society and representation of the king. . . . Since the Cæsars no human life had occupied such a place in the sun." Anything that suggested or in the least savored of economy was considered bourgeois and consequently not to be thought of in connection with the king or the great personages by whom he was surrounded.

For a period of more than half a century this nation thus organized was used by Louis XIV for the maintenance of this court in a state of the greatest splendor and magnificence and in the waging of almost continuous warfare on his neighbors. Louis regarded himself as the *grand monarch*, the king of all kings, and was ambitious to force the world so to regard him. To the accomplishment of this end he was lavish in the expenditure of the lives and the wealth of his people.

The support of a régime such as has been described required an income the raising of which would have been a heavy burden on the nation under the best of conditions. With the methods of taxation actually employed and the production and distribution of wealth in the state in which they actually were in France of the eighteenth century, it was too heavy for the shoulders upon which it was placed.

The system of taxation employed⁴ included a direct tax called *taille*, indirect taxes, and a labor or service tax, the *corvée*. The *taille* was imposed upon persons and property, but the nobility and clergy were exempt from it on the theory that they owed the king their

³ *Ibid.*, I, 135, 137.

⁴ See Henry Higgs, *The Physiocrats* (London: Macmillan & Co., Ltd., 1897), Ch. I.

services and not their money. Patents of nobility, which were frequently sold to people able to buy them, carried with them this privilege of exemption. This tax was very inequitably levied, being very much heavier in some places than in others and upon some persons than others. The principal indirect tax was the *gabelle* levied on salt. This tax also varied greatly in amount in the different provinces, and except in certain favored localities a minimum amount called the *sel de devoir* was levied upon every person over eight years of age. These and other indirect taxes were farmed out to so-called farmers-general who purchased what they were able to collect for a fixed sum paid year by year in advance. The exactions of these tax-collectors were frequently extortionate and their methods harsh and revolting. The *corvée* included a tax on the peasants paid in labor—so many days per year, for example, for the repairing of roads; the obligation of feeding, housing, and transporting soldiers who were billeted upon them; and service in the militia, for which each district was compelled to supply its quota. In addition to these national taxes there were various local dues and tithes levied by the Church.

While with the exception of the *taille* these and many other taxes were in theory levied upon all classes, as a matter of fact the privileged classes were for the most part exempt from them. In the words of Taine,⁵ "The collectors stopped before them because the king felt that the feudal property had the same origin as his own. If royalty is a privilege seigneurage is another. The king is simply the most privileged of the privileged. The most absolute and the most tenacious of his own rights, Louis XIV had scruples when extreme necessity constrained him to impose upon all the tax known as *le dixième*. Contracts, precedents, immemorial custom, the recollection of the old law restrained the hand of the tax gatherer. The more the proprietor resembled the ancient independent sovereign, the greater was his immunity."

This picture of the old régime painted in such vivid colors by Taine and others concerns the student of the history of political economy on account of the light it throws on the operation of economic forces and their interpretation by contemporaries. Regarding the economic conditions of the country two facts stood out with such prominence that they could not escape the attention of even casual observers. They were the degradation and decrease in the numbers of the common people and the neglect and decline of agriculture. These conditions

⁵ *Op. cit.*, I, 25, 26

became so serious that the entire state was impoverished, king and nobles included. In the latter part of the eighteenth century ruin threatened. Taxation had reached the highest possible maximum. No new device in the form of new varieties of taxes or new methods of levying them could bring an additional sou out of the people. Previous to the Revolution borrowing to cover deficits had been resorted to to such extent that the credit of the government was practically destroyed. Many members of the nobility were utterly unable to make both ends meet and had nearly or quite ruined themselves by excessive borrowing.

B. THE REVOLUTION IN THE REALM OF THOUGHT

While these conditions were in process of development, little short of a revolution in the realms of thought was in progress. This took the form of the development of the modern sciences of nature and society and of a philosophy based upon the doctrine of the universal sway of natural law.

Beginning with the publications of Newton's *Philosophiæ naturalis principia* in 1687, there developed in rapid succession the sciences of physics, chemistry, astronomy, and biology. These revealed the presence of laws in the physical, plant, and animal worlds the operation of which depended in no way upon the human will or upon human initiative, laws to which indeed human beings were as completely subject as were the physical universe, the plants, and the other animals, and the result of which was a universe, complex in structure, in which each part is marvelously adapted to every other and which is constantly changing into something more complex, more wonderfully constructed, more marvelous, and more beautiful.

In this universe man appeared to be a mere atom, and since his body was demonstrably subject to the control of the universal laws of nature, why should not his mind and his moral nature be also? An affirmative answer to this question was natural and was given by the eighteenth century pioneers in the mental, moral, and social sciences. For them observation was the proper method for the discovery of truth in the social sciences, and the purpose of such sciences was conceived to be the discovery of the natural laws in accordance with which human societies function and develop. That there were such laws there appeared to be no doubt, and as little doubt could there be that such laws, once discovered, would supply the guides for right social action or for the solution of the ills of human society

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Among these pioneers of the social sciences belong Montesquieu, Voltaire, and Rousseau of world-wide fame, and many other less well-known names. In this latter group were three men who were the spiritual predecessors of the Physiocrats. These men were genuine products of the intellectual, social, and political conditions of the period and were thorough-going critics of the old régime.

C. THE SPIRITUAL PREDECESSORS OF THE PHYSIOCRATS

1. Boisguillebert.

Pierre de Boisguillebert, the member of this trio first to demand our attention, belonged to a family of Rouen who in the eighteenth century rose from the *bourgeoisie* to the ranks of the nobility. He was a younger son; was educated at the College of Jesuits at Rouen and at the Port Royal and the École de Droit at Paris; and became an *avocat*. He seems not to have followed his profession, however, at least to any great extent, for at an early period in his career he engaged in literary pursuits and in 1668 entered the civil service of his district as Vicomte de Montiviliers. This latter position made him judge in a court of first resort of cases which arose between peasants.

His official position not bringing in sufficient income for his support, he also engaged in business as agriculturist, merchant, and banker, thereby accumulating a moderate fortune, a portion of which he expended in buying a higher and more lucrative office, namely, that of *président au bailliage et siège présidial de Rouen*. This position made him an important member of the hierarchy of officials which had in charge the government of France, including the raising of funds for the support of the king and his court.

Experience in these two official positions made him familiar on the one hand with the financial and administrative system of the country and on the other with the condition of the masses of the people. He became convinced that there was a vital connection between the two, that the misery he saw about him, as well as the inadequacy of the royal revenues, were due to bad financial and administrative methods. He voiced this belief in a publication of the year 1697 entitled *Le détail de la France*. This book finding few readers and creating little or no impression, he prepared a more elaborate statement of his case which he entitled *Factum de la France, ou Moyens très faciles de rétablir les finances de l'État*, which, however, he did not publish until 1707. In the meantime, however, he published three other pam-

phlets worthy of note, namely, *Traité de la nature, culture, commerce et intérêt des grains*; *Causes de la rareté de l'argent, et éclaircissements des mauvais raisonnements du public à cet égard*; and *Dissertation sur la nature des richesses, de l'argent et des tributs ou l'on découvre la fausse idée qui règne dans le monde à l'égard de ces trois articles*.

The publication of the *Factum* in 1707 seems to have been caused by his despair over the failure of his previous writings to accomplish anything in the way of reform and by the increasing poverty and misery of the people. It was listened to by Chamillart, the Comptroller-General of the Finances, who was himself inclined to be liberal in his views, but the execution of the suggestions therein contained was considered impracticable at the time. This condition of affairs spurred him to the publication of what he called a *Supplément au "Détail de la France"*. His persistence, however, brought him into conflict with his superiors, and the *Factum* was proscribed by a decree of the Council of State March 14, 1717. Boisguillebert himself was deprived of his offices and sent into exile to Auvergne.

Though not immediately successful in the accomplishment of the purposes of his life, the ideas which Boisguillebert expressed in his various writings bore fruit in the lives and thought of his successors. He was one of the spiritual and intellectual fathers of the physiocratic system which in time helped to produce the Revolution. We shall now describe those ideas of his which were thus pregnant with influence.

One of the most fundamental of them was expressed in Part I of the *Détail*,⁶ which is entitled "De la diminution de la richesse nationale." It is that the riches and the power of a country are based upon the productivity of its lands, mines, fisheries, and other sources of raw materials, all other forms of wealth being strictly proportional to these. The causes of the riches of Europe, he says in substance, are corn, wine, salt, and cloth, her production of other things being in proportion to her possession of these. Pursuant to this idea he affirms that the power of France consists in the fact that she produces all things necessary for the consumption of her own people, with a surplus for exportation. He divides the property of France into what he calls *biens fonds et biens de revenue d'industrie*, that is to say, basic goods and goods derived or produced therefrom by industry. This latter class, the production and consumption of which concerns three times as many people as the production and consumption of the former class,

⁶ Quotations are from *Économistes financiers du XVII^e Siècle*.

increases and decreases in proportion to the former. "Thus," he says, "the increase of the fruits of the earth sets to work lawyers, physicians, actors, and artisans of every kind, the connection between the two being so close that one sees very few people of this kind in sterile countries, whereas they abound in the others."⁷

Since 1660, he adds, the basic products of France have diminished in quantity one-half and from that he concludes that other products have decreased in still greater proportion. By way of illustration he calculates that a diminution of 500 livres in the production of basic goods would cause one of more than 3,000 livres in other goods.

In Chapter IV of his dissertation on the nature of riches he gives a more elaborate exposition of this fundamental proposition by tracing the dependence upon agriculture of the 200 different professions practised in France, and connects the fall in the value of the annual products of agriculture with most other social ills.

In further proof of this fundamental proposition he discusses the nature and functions of money and combats certain notions on that subject. This discussion in one form or another appears in all his writings, but, as previously noted, he devoted an independent pamphlet to it.

In the *Détail* he gives a discussion of the relation between money and wealth in which he says:⁸ "As gold and silver are not and never have been wealth in themselves and are valued only in relation to other things necessary to life,—to which things they serve only as a guarantee and a measure of value,—it is a matter of indifference whether we have much or little of them, provided the same results are produced." That the same results are produced by much or little he attempts to prove by the following: "Thus we learn from the old accounts that in 1250 a laborer in Paris, who to-day earns 40 or 50 sous a day, earned only 4 pennies a day, 12 one-hundredths part of what he earns now. Nevertheless he then lived with as much comfort as now because all things were in proportion. He satisfied his wants with his four pennies as well as one of the same trade now does with his 50 sous. It follows that a man who at that time had a thousand livres of rent was as rich as one who at present has one hundred thousand."

In other connections he says:⁹ "It is very certain that it [money]

⁷ *Loc. cit.*, p. 173.

⁸ *Ibid.*, p. 178.

⁹ *Ibid.*, pp. 209 and 210.

is not a good in itself and that the quantity of it does nothing for the opulence of a country in general provided there is enough of it to sustain the prices of the goods necessary to life."

"It may be said that the richer a country is, the more it is in a condition to dispense with specie, since there are more people who can use representatives of it, i. e., mere pieces of paper called bills of exchange."

"From these principles it follows that, with regard to a nation's riches, which are nothing except the power to procure the necessities and comforts of life, money is only the means, while useful commodities are the end, and that a country can be rich without much money while one which has only money can be very miserable if it can only with difficulty exchange it for other commodities."

Silver and gold, he says,¹⁰ have as competitors copper, leather, shells, and "a simple piece of paper which costs nothing but nevertheless performs all the functions of money to the amount of millions by passing from hand to hand an infinite number of times." By way of illustration he refers to the Lyons fair in the following manner: "In a commerce consisting of purchases and sales to the amount of more than eighty millions not a 'sou marqué' of money is seen. Everything is done by bills of exchange which after passing through an infinite number of hands, finally return to the original drawer."

The relation he saw between *biens fonds* and *biens de revenue d'industrie* and between money and other goods suggested other forms of equilibria. He begins the *Traté* by classifying goods into products of the earth and products of industry and, on the basis of their ownership, into the property of the proprietor and farmer, that of the owners of houses in cities, of owners of rents, offices, silver and bills, and of manual laborers, and of wholesale and retail merchants. The chief fruits of the earth, he says, are grain, liquors such as wine, cider, and alcohol, animals, and cloth. He then proceeds to say that the laborer can continue to produce all these things only in case the other categories of people buy his products at a price which will prevent loss and render the advantages mutual. It is also necessary, he says, that the members of the 200 professions should traffic with each other and that the entire product of their efforts should be "on a level with the fruits of the earth, especially with grain, to which they all owe their birth." He lays emphasis upon the necessity that all should profit by this traffic. The ruin of one injures all, he says.

¹⁰ *Ibid.*, p. 398.

In other connections¹¹ he emphasized the need of an equilibrium between purchases and sales and the importance of proper adjustments of prices, especially of the prices of raw produce and manufactures.

In order to secure these and other needed adjustments, he affirmed that reliance can be placed only on nature. The following words of his taken from Chapter V of the *Dissertation*¹² present this doctrine clearly:

"There must be a police in order to bring about the observance of harmony and the laws of justice among so great a number of men who seek only to destroy these and to deceive and surprise each other from morning until night, and who continually aspire to found their opulence upon the ruin of their neighbors. But it is to nature alone that we must look for the establishment of this order and for the maintenance of peace here. Every other authority spoils everything by wishing to mix in these matters, however well intentioned it may be. But nature, jealous of her operations immediately avenges herself by a general disconcertment the moment she sees that by outside interference the wisdom of her operations has been defied. Her first intention is that all men shall live comfortably from their own work or from that of their ancestors. In a word it is established that each trade must nourish its master or that he must close his shop and procure another. For it cannot be that she loves men less than the beasts, not a single one of whom does she bring into the world without at the same time assuring it of its pittance. In like manner she acts towards men everywhere so that they put themselves into proper relations with her."

2. *Vauban*.

Vauban was born May 14, 1633. His parents having died when he was ten years of age, he was placed in the care of Abbé Fontaine, who supervised his training as a military engineer. In this capacity he served his king during the greater part of his life, taking part in the more important sieges undertaken in the course of Louis XIV's numerous wars and planning and building fortifications, roads, and bridges.

Unlike many people of that time connected with the military profession or the administration of the government, Vauban had a tender heart and genuine sympathy for the common people, of whose wretched condition his travels and observation gave him an accurate

¹¹ See *Dissertation*, Ch. V, and the *Factum*, Chs. I-III.

¹² *Loc. cit.*, pp. 408 and 409.

knowledge. Long before he began to write on the subject he had also noted the discrepancy between the possible and the actual productivity of the country.

Reflections upon these matters convinced him that the key to the explanation was to be found partly in the amount of the taxes but chiefly in their distribution and the manner of their collection, and that the remedy for the ills of the state was a radical reform in the taxation system. To the devising of such a reform, therefore, he gave much anxious thought during the later years of his life with the result that he addressed a memoir on the subject to M. Le Pelletier in 1694 and by 1699 had prepared his *Dîme Royale*, which, however, was not published until 1707.

In this book he refers with approval to Boisguillebert's description of conditions, including his criticisms of the system of taxation. His own studies, he says, have revealed "conditions which correspond perfectly to what was written concerning them by the author of the *Détail de la France*, who developed and brought to the light of day very naturally the abuses and malpractices which are practiced in the imposition and the levy of the *Tailles*, the *Aides* and the Provincial tariffs." ¹³ In his memoir to Le Pelletier he also said: "Let his Majesty have the goodness to remember that the grandeur of kings can only be measured by the number of their subjects, that upon that depends all their grandeur, their power and their riches, and that without that they have only vain titles which are burdens to themselves and to everybody else and nothing more." ¹⁴

In his book he stresses the doctrine "that persons of all conditions should contribute to the public expenses in proportion to their revenue and their industry without privilege or exemption; that taxes ought to be easily collected in such a manner as not to give rise to contests or to vexations on the part of the fiscal agents; and that so far as possible the contributor should be able to pay all his taxes at one time." ¹⁵

The reform he proposed was the levy of what he called a *dîme royale* or royal tithe, which in substance was a tax to be derived from four different sources:

1. Not to exceed a tenth of the product of real estate (*biens fonds*), to be collected in kind.

¹³ *La Dîme Royale* (Petite Bibliothèque Économique), p. 3.

¹⁴ *Ibid.*, Michel's Introduction, p. xxiv.

¹⁵ *Ibid.*, p. xxv.

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2. Not to exceed a tenth of the income from houses in villages and cities, from mills, from industry, from rents, salaries, pensions, and similar incomes.

3. A tax on salt.

4. Not to exceed a tenth of all other incomes, a composite lot grouped together because of their varying characteristics.

The manuscript of the *Dîme Royale* was completed in 1699, but was not published until 1707. It was placed upon the list of proscribed books by the King's Royal Council and the reform it recommended was condemned, a proceeding which is said to have been responsible in part at least for the author's death, which occurred on April 16 of the year in which these events took place.

3. *Cantillon*.

A period of nearly half a century intervened between the publications of Boisguillebert and Vauban and the appearance of Cantillon's *Essai sur le commerce en général*. During this period the reactionary influences which had suppressed the *Factum* and the *Dîme Royale* closed the mouths and restrained the pens of reformers of the Boisguillebert and Vauban type, but about the middle of the eighteenth century the suppressed intellectual forces of the nation broke their bonds and noteworthy writings on economic subjects were produced, among them Cantillon's essay. It was originally written in English and was published in England between 1730 and 1734. The essay, or a portion of it, was subsequently translated by the author himself for the use of a French friend, and in 1755 it was published in its French form.

The author, Richard Cantillon, was born in Ireland between 1650 and 1690. Soon after the death of Louis XIV he removed to Paris and engaged in the business of banking during the period in which John Law flourished. Being confident of the ultimate failure of the Mississippi scheme, Cantillon speculated on the bear side of the market and made a fortune, but incurred the enmity of Law and was obliged to leave France. He was murdered in London on May 16, 1734, by a discharged man-servant, who set fire to his house and stole some of his papers.¹⁶

A significant part of the title of Cantillon's essay is the phrase *en*

¹⁶ For these and other facts concerning Cantillon's life and his essay, see Introduction to the edition of the *Essai* published by Harvard University in 1892.

général. He proposed to treat of the nature of commerce not in the aspect in which it was exhibited in a particular country at a particular stage in its history, but "in general." The subjects which he treats are the nature of wealth; the methods of its production; its circulation among the different classes of people within a nation and between different nations, including an account of how these different classes are formed; the distribution of income, including an explanation of the different rates of wages of different classes of laborers; prices; money; credit; banks; and foreign exchange.

Some of the interesting conclusions at which he arrives are the following: "Land is the source or material from which wealth is extracted," but "human labor is the force which produces it." "Wealth is . . . the sustenance, the conveniences and the comforts of life: in all forms of society the ownership of land necessarily belongs to a small number of persons and the surplus at the disposition of landowners and their method of consuming this surplus determine the character of the national production; the cost of acquiring skill explains the difference between the wages of skilled and unskilled laborers, and cost of production regulates the prices of all services and commodities: the number of laborers in the different occupations adjusts itself to the demand for them."

In Chapter XII he develops in the following words his arguments regarding the relation of land and of the expenditures of land owners to the economic life of a nation.

"If the princes and the proprietors of lands should enclose them, and if they should not allow any one to work them, it is clear that there would be neither nourishment nor clothing for any of the inhabitants of the state. Consequently, all the inhabitants of the state not only subsist from the product of the land which is cultivated for the proprietors, but also at the expense of these same proprietors from whose land they procure everything they have.

"Cultivators receive ordinarily two-thirds of the product of the land, one-third for their expenses and the maintenance of their subsistence, and the other one-third for the profits of their enterprise. From these two-thirds the cultivator supports generally, directly or indirectly, all those who live in the country and also many artisans and entrepreneurs who live in the city, because of the merchandise of the city which is consumed in the country.

"Ordinarily the proprietor has one-third of the product of the land, and

from this one-third he supports the artisans and other people whom he employs in the city and often people who transport produce from the country to the village.

"It is generally supposed that one-half of the inhabitants of the state live in the cities and the other half in the country. That being the case, the cultivator who has two-thirds or four-fifths of the product of the land gives directly or indirectly one-fifth of it to the inhabitants of the city in exchange for produce which he receives from them. This, together with the one-third or two-fifths which the proprietor expends in the city makes three-fifths or one-half of the product of the soil. This calculation is made only for the purpose of giving a general idea of proportions.

"Whenever one examines into the means by which a person lives, he always finds in going back to their source that they come from the property of the proprietors of land, and that they consist either in the two-thirds of the product which is given to the cultivator or the one-third which remains with the proprietor.

"If the proprietor has only the quantity of land necessary for a single cultivator, this cultivator will derive from it a better subsistence than he. But the seigneurs and proprietors of great estates who live in the villages have sometimes many hundreds of cultivators, and in any state these bear a very small proportion to the total number of inhabitants.

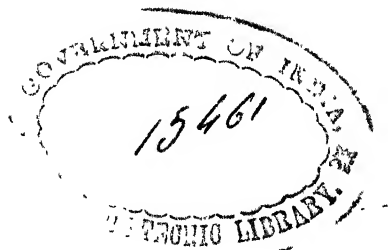
"It is true that there are often found in large cities many entrepreneurs and artisans who subsist on foreign commerce, and in consequence at the expense of proprietors of lands in foreign countries, but I am considering at present only those who live and get their subsistence out of the lands of a single state, in order not to embarrass my subject with accidental considerations.

"The property in the soil belongs to the proprietors, but this property becomes useless if one does not cultivate the land, and the more one cultivates it, all other things being equal, the more produce he gets, and the more one transforms or works over this produce, all other things being equal, the more merchandise is made from it, and the greater its value. From this it is evident that the proprietors have need of the other inhabitants as well as that these have need of the proprietors; but in this economy it is to the proprietors, who have the disposition and the direction of the property, that is assigned the duty of giving direction and movement to all of these matters. In a state everything depends upon the tastes and customs and methods of living of the proprietors of the land, as I will attempt to show later on in this essay."

The resemblance of this argument to that subsequently employed by the Physiocrats is so striking that one can hardly avoid the conclusion that the later one was derived from or at least greatly in-

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fluenced by the earlier. This conclusion is supported by the fact that founders of the physiocratic school studied Cantillon's essay before publishing their characteristic doctrines and that one of them, at least, admitted having been greatly influenced by it.



CHAPTER IV

THE PHYSIOCRATIC SYSTEM

A. THE ORIGIN OF THE PHYSIOCRATIC SCHOOL

The founders of the physiocratic school were the Marquis de Mirabeau and François Quesnay. The writers and the events which we have discussed in the preceding pages prepared the way for these men, and the former, especially Cantillon, anticipated some of their fundamental doctrines.

1. *Mirabeau.*

Mirabeau's life (October 4, 1715 to July 13, 1789) bridged the gap between the death of Louis XIV and the outbreak of the Revolution. After some service in the Army, in 1734 he succeeded to his father's title and estates and to the social prestige and influence which these involved. He early "cherished the ambition of becoming a great philosophical statesman," and to this end gave a large amount of his attention and energy to public matters. He possessed considerable literary and oratorical ability and a personality magnetic in an unusual degree. He had great family and social pride and remarkable courage and sincerity. With tact he was not so well equipped.

According to Weulersse,¹ a copy of Cantillon's essay was in the hands of Mirabeau in 1741 or 1742, and from it he probably learned his first lessons in political economy. At one time he contemplated publishing a commentary on it over his own name, but he subsequently decided to publish the essay itself. The edition of 1755 already mentioned was the result. Two years later he published a book of his own entitled *l'Ami des hommes ou Traité de la population*, the thesis of which, according to his own statement, was derived from Cantillon's essay and which he describes in the following words: "Like him and so many others, I have reasoned as follows: Wealth is the fruit of the earth at the disposition of man. The labor of man alone has the power to increase it, hence the more men there are, the more labor there will be; and the more labor there is, the more wealth." ²

¹ Georges Weulersse, *Le mouvement physiocratique en France* (Paris, 1910), I, 34.

² *Ibid.*, I, 54.

In *l'Ami des hommes* Mirabeau says: "The multiplication of men is called population: the increase of the products of the earth is called agriculture. These two principles of wealth are intimately bound together."³ In proof he developed the proposition that food is necessary for the support of animal life; that consequently the greater the supply of food, the greater the number of lives that can be supported; agriculture being the source of food for human beings, upon its development depends the number of the population in any country. That population does not depend upon fecundity he illustrated by asking why sheep are more numerous than wolves. It is certainly because there is more food for their support and not because their fecundity is greater. The fecundity of the human race is assumed to be great enough to keep the population on a level with the food supply. The latter, therefore, and agriculture, from which it is derived, are of fundamental importance.

This book was exceedingly popular and attracted the attention of François Quesnay, then physician to Madame de Pompadour, who solicited with its author the interview which resulted in the founding of the physiocratic school.

2. François Quesnay.

Quesnay came from peasant stock and lived on a farm during the first seventeen years of his life. He was then apprenticed to an engraver in Paris, where he subsequently studied and practised medicine, in which profession he attained sufficient rank and reputation to enable him to receive the appointment of court physician at first to Madame de Pompadour and later to the king. He was not fitted for or interested in the life of the court, however, where he was regarded "as a harmless eccentric with a mania for agriculture," and the duties of his position occupied little of his time. He therefore had abundant leisure for reading, study and reflection. His interest in agriculture persisted in spite of his immediate environment and occupation and his mind appears to have been occupied more and more with that subject.

The records of his thinking are too meager to enable one to determine the precise evolution of the ideas for which he became famous. Two articles, entitled respectively "Fermiers" and "Grains," which he contributed to the *Encyclopédie* of Diderot and D'Alembert in 1756 do not suggest or foreshadow them, but they indicate that his thinking on economic subjects was in process of change and that he was familiar with the economic writings of his time, including Cantillon's essay.

³ *l'Ami des hommes*, ed. of 1758, p. 13.

It seems probable that the doctrines developed gradually during a long period of time and that their formulation was stimulated by the perusal of *l'Ami des hommes* and the discussion which began with the above-mentioned interview with its author. Their publication in a monograph entitled *Tableau économique* was doubtless occasioned by the situation in which the government found itself at the end of the year 1758.

The Seven Years' War was at that time in progress, and the French armies had suffered in succession two disasters, at Rosbach and Crevelt respectively, the repair of which was bound to be costly. The financial condition of the government, however, was deplorable. Three comptrollers-general had succeeded each other in rapid succession in hopeless attempts to restore the finances to a tolerable state; a commission appointed to investigate and make suggestions for a reform had discovered scandalous misappropriations of funds; and the public credit had fallen almost, if not quite, to the vanishing point. Quesnay considered this an opportune time to present to the government the principles of his system, which he believed "would assure the Kingdom a brilliant and solid financial restoration." In December, 1758, therefore, he drew up his *Tableau économique*⁴ upon which, according to Weulersse, he had been at work for more than a year, and had it privately printed in the palace at Versailles.

In the *Tableau économique* Quesnay presents in the form of a table followed by explanations and comments his idea of the way in which wealth circulates among the different classes of society. He takes the hypothetical case of a society in which 600 livres are annually expended in raising products from the soil. He calls this sum the annual advances to agriculture. Then he adds the following five hypotheses: (1) that the expenditure of these 600 livres will result in a product of 1,200 livres, that is, that this expenditure will reproduce itself with a profit of 100 per cent; (2) that the 600 livres of profit will go to the proprietors of the land and will be expended one half in purchases from the cultivators and one half in purchases from the industrial class; (3) that that part of the net profits, or 300 livres, which passes through the hands of the industrial class will be expended by them without producing any profits, that is, that its expenditure results in 300 livres of produce and no more; (4) that the industrial class

⁴ The history of this little book, including the various forms in which it subsequently appeared, is given by Higgs in *The Physiocrats*, pp. 42 and 43. See also Weulersse, *op. cit.*, I, 69 and 70.

expends one half of what it receives on itself and the other half in purchases from the cultivator class; and (5) that the cultivator class expends one half of what it receives on itself and one half on the industrial class. On the basis of these hypotheses the following table was constructed:

<i>Production expenditures</i>	<i>Expenditures of revenue or profits</i>	<i>Sterile expenditures</i>
Annual advances of 600 livres produce net revenue of	600 livres	_____
300 livres reproduce net	300 livres	300 livres
150 livres reproduce net	150 livres	150 livres
75 livres reproduce net	75 livres	75 livres
and so on until a total of		
600 livres reproduce	600 livres	600 livres

In this manner Quesnay aimed to show that a capital of 600 livres used in the manner indicated would reproduce double itself and that this process of expenditure could be repeated indefinitely with the same results. Change these figures, however, and the results would be very different. For example, if the proprietors and the industrials should expend upon agriculture less than one half of what they receive, the annual advances to agriculture would not be completely replaced, and it would necessarily decline, the income of the proprietors would progressively decrease, and there would be less to expend upon the industrial class. On the other hand, if the proprietors and the members of the industrial class should expend upon the cultivator class more than one half of their receipts, more than the annual advances to agriculture would be returned to the cultivator class, the income of the proprietor class would increase, and there would be more to expend upon the industrial class. Under the former conditions there would be a progressive decrease in the wealth of society and under the latter, a progressive increase. The proper adjustment of these expenditures, therefore, is of primary importance to the well-being of a nation.

At the close of his explanations he names eight causes of maladjustments of these expenditures and hence of the decadence of nations. They are the following:

1. Bad forms of taxes which make inroads upon the advances of the cultivators. The motto here should be *Noli me tangere*.
2. Excessive costs for the collection of taxes.

3. Excessive expenditures for decoration.
4. Excessive expenditures for litigation.
5. Defective foreign commerce in the products of the soil.
6. Lack of liberty of domestic commerce in the products of the soil.
7. Personal vexations inflicted on the inhabitants of a country.
8. Failure to return the net annual product to agriculture.

Appended to the *Tableau* are twenty-three short numbered sections following the heading *Extrait des Oeconomies Royales de M. de Sully*. This title is a misnomer, since these paragraphs are in no sense extracts from anything written by Sully. They are comments suggested by the *Tableau* regarding what should and should not be done. In them the author recommends freedom of commerce both internal and external, on the ground that interference will increase the price of non-agricultural at the expense of agricultural products and thus decrease the amount available for reproduction. He warns against the danger of interpreting large mercantile profits and a favorable balance of trade as necessarily indicating profitable commerce to a nation. He recommends that taxes be levied directly on the income of proprietors and not on products, on the ground that thus the expenses of collection will be at the minimum, the productive funds of the country will be left intact, and commerce will be left unimpeded. He urges that expenditures on commodities that directly increase the demand for raw produce be encouraged by the government and expenditures on what he calls *décoration* be discouraged. He warns against the encouragement of what he calls "money fortunes" made in any other fields than agriculture and manufactures, on the ground that their overdoing is sure to interfere with the proper circulation of the nation's wealth to the injury of agriculture. He urges that the interests of the common people need the attention of royalty and that their ease and comfort should never be infringed.

By the Physiocrats themselves the *Tableau* was regarded as a wonderful production and its author as a great genius. Mirabeau lauded it to the skies. Upon outsiders, however, it did not make a great impression. Elaboration and explanation were needed in order to reveal its real significance. It contained the germs of many doctrines which it did not clearly state and which it did not even suggest to many people. These were fully developed later on by the author himself and by other members of the school. To the end, however, it remained the bible of physiocracy, and some things were doubtless read into it which did not occur to the author when he wrote it.

B. DEVELOPMENT OF THE SCHOOL

For some time Mirabeau remained Quesnay's only thoroughgoing convert. Several people were sympathetic with his larger purposes and with many of his proposals of reform but refused to accept his fundamental theories. To this class belonged Gournay, the Minister of Commerce for many years, who died, however, a short time before the *Tableau* was published. For several months before his death, however, he was in close association with Quesnay and Mirabeau and possibly collaborated with them in the development of the principle which he expressed in the famous formula *laissez faire, laissez passer* which the Physiocrats afterward adopted.⁵ Quesnay and Mirabeau worked faithfully together toward the conversion to their ideas of the public and especially of the government. One of the difficulties encountered was the form of the *Tableau*, especially the *Ziczacs*, as it was called, and its brevity. A popular exposition and explanation was thought desirable, and Mirabeau undertook the task, submitting his work chapter by chapter and line by line to the criticism⁶ of Quesnay. The result was his *l'Explication du Tableau économique*, which was published as Part VI of his *Ami des hommes*. To the same end Mirabeau wrote his *Théorie de l'impôt*. In these two works his zeal outran his discretion. The directness and severity of his criticisms of the administration and especially of the farmers-general and the language in which these criticisms were expressed displeased the king, who had him imprisoned.

This untoward event temporarily diminished the popularity of the new school, but ultimately had the opposite effect by giving Mirabeau the appearance of a martyr. During the years 1761 and 1762, however, the master and his distinguished pupil, whose term of imprisonment was very short, were much more discreet in their methods of propaganda and publicly much less active than at the beginning, when they had even been so optimistic as to hope that the reform of the government's finances might be entrusted to their hands. During this interval they produced the *Philosophie rurale*, which was published in a large quarto volume of several hundred pages of fine and close print and which was designed to be a complete treatise on economic science. Of it Weulersse says:⁶ "It was no longer a question of a work of the hour, of a plan for immediate reform proposed as a remedy for a

⁵ See Weulersse, *op. cit.*, I, 27 and 28, 47 and 59.

⁶ *Ibid.*, I, 85.

crisis. It was a pure and simple exposition, masterful and complete, of a doctrine full of resources without doubt, but of a superior truth, the principles of which were to be applicable to all countries and to all times. While in this great book this doctrine was expounded with all its richness of idea and its complexity of deductions, it nevertheless preserved a rigor and an abstract precision of which arithmetical formulas supplied with an abundance of comments was the image."

Quesnay and Mirabeau strove valiantly to convert to the new doctrines as many people as possible, especially influential ones, and to this end, after they had succeeded in a considerable number of instances, conducted a periodical and a school and near the close of the year 1767 formed themselves into a society which regularly held weekly meetings at Mirabeau's house. The most prominent and active members of the group were: Dupont de Nemours, a neighbor of Mirabeau and an author of some note; Abeille, Secretary of the Agricultural Society of Brittany; Mercier de la Rivière, a councilor of one of the departments of the Parliament of Paris and one time Governor of Martinique; Baudeau, editor of a journal modeled after Addison's *Spectator*, called *Ephémérides du citoyen*; and Le Trosne, a lawyer of some note. Turgot, who filled at different times high positions in the government service, including that of Minister of Finance, was not, strictly speaking, a member of the school since he did not take part in the activities of the group, but he adhered to their doctrines and so far as possible was guided by them in his public activities.

They also tried to extend their influence throughout the world. To this end they used agricultural and other societies in the provinces and sent letters and representatives to Catherine II of Russia, Carl Friederich of Baden, Gustavus III of Sweden, Leopold II of Tuscany (afterwards Emperor of Austria), Charles III of Spain, the Emperor Joseph II, and Ferdinand of Naples. They also corresponded with authors, scientists, and other intellectuals and with the brilliant and influential women of the time.

C. DOCTRINES OF THE SCHOOL

After the publication of the *Philosophie rurale*, in which the doctrines of the school were expounded in a systematic, formal, and extended manner, several other important books and a large number of less important writings appeared. Of the books Mercier de la Rivière's *l'Ordre naturel et essentiel des sociétés* and Dupont's

Physiocratie, both published in 1767, and Turgot's *Réflexions*, published in 1769, are the most noteworthy. Most of the lesser writings appeared in the *Journal de l'agriculture du commerce et des finances* and the *Ephémérides du citoyen*, periodicals conducted at different times by the school and edited by Dupont and the Abbé Baudeau.

In these writings was developed an organized body of doctrines which marks the beginning of the science of economics. It may be briefly summarized as follows:

There is a natural order for the economic affairs of men which, if observed and conformed to, will secure their well-being. This order is obvious to intelligent people but must nevertheless be discovered, and when discovered, will be spontaneously followed for the reason that people will see its advantages and self-interest will prevent its violation. God, who has ordained this order, has endowed the human race with land which possesses the peculiar property of being able to produce more than is expended in the process of its cultivation. The excess, called the *produit net*, is the fund from which all classes of society except cultivators must live, since in no department of economic activity except agriculture is there a similar surplus. Manufacturing simply mixes and combines already existing materials, and commerce transports them from place to place and passes them from hand to hand without adding anything to them. The change in price or value which takes place during these processes is exactly offset by what is consumed during them. All classes except landlords and cultivators, who conduct the operations of agriculture, are therefore sterile.

Revenues for the support of government must come from this *produit net*, since there is no other source from which they can come. If taxes were levied upon the cultivator class, either their advances would not be returned to them, and the succeeding product would be correspondingly diminished to the impoverishment of all, or they would pay correspondingly less to the proprietors, whose income is the *produit net*; if levied upon the sterile classes, either they would needs buy less from the cultivators with the same result in the diminution of their annual advances as has just been indicated, or they would needs raise the price of their products to such an extent as to shift the payment ultimately to the proprietors.

Since, therefore, the support of the state must be borne by the *produit net*, taxes should be levied directly on and paid directly by the proprietor class to whose hands that fund flows directly from

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the soil where it is produced. Another reason assigned for requiring the proprietors to pay all the taxes is the coproprietorship in the land which belongs to the sovereign. That he is a coproprietor was not only a tradition handed down from feudal days but was a consequence of the fact that the state really contributes to the *avances primitives*, the advances made by proprietors in originally preparing the soil for cultivation and in maintaining and improving its fertility. It does this through the construction and maintenance of roads, bridges, canals, and other public works essential to the prosperity of agriculture.

The Physiocrats assigned to the proprietor class an important and peculiar rôle in economic affairs and regarded proprietorship as a divine institution. This rôle was identical with that assigned to this class by Cantillon, namely that of dispensing the *produit net*, the means of existence of all other classes. They were completely oblivious to the afterward-alleged parasitic character of this class and to the criticism later passed upon it and upon landed property in general. In explanation of this attitude may be mentioned the fact that labor did not have in their eyes the dignity it possesses in ours. It is not productive, not even that of the cultivator. In agriculture nature does the producing, not labor. Furthermore the society in which they lived, and their forefathers before them, had accustomed them to the dominance of inactive proprietors. It was and always had been governed in its economic as well as in its political relations by this class. They viewed this condition of things as necessary in the same way that Aristotle did slavery. One of their number, the Abbé Baudeau, sought to justify this condition by noting that the proprietors have cleared and prepared the soil for cultivation or have inherited or purchased it from those who did; that they are continually making improvements on the land; and that their right to the soil is based upon original appropriation,⁷ to their way of thinking a natural and just title.

While they declared both commerce and manufactures to be unproductive, they nevertheless regarded them as advantageous if kept within proper limits. As phases of the division of labor they enabled cultivators to concentrate their efforts upon the raising of crops and therefore were useful and worthy, though not necessary, occupations. Only the direct commerce between merchants and cultivators and

⁷ See Charles Gide and Charles Rist, *A History of Economic Doctrines*, translated by William Smart and R. Richards (Boston: D. C. Heath & Co., 1915), pp. 22 *et seq.*

proprietors, however, was desirable in their eyes. Buying in order to sell again, or traffic, as they called it, was harmful because it results in the absorption of an unnecessary amount of wealth by the mercantile class. They also held that commerce should be entirely free and untrammelled by obstructions of any kind on the ground that free competition between merchants is essential to the maintenance of proper prices. This principle should apply to international as well as domestic commerce, since the *natural order* knows no distinction of frontiers and implies freedom for each one to buy or sell as he pleases regardless of whether he is trading within or without the country.

The only exception to this principle of freedom of trade—if loaning money be classed as trade—is the prohibition of interest, in all cases except that of loans for use in agriculture, recommended by most of the Physiocrats on the ground that all other loans are unproductive. To this exception, however, Turgot did not agree, on the ground that to prohibit interest is to prohibit loans, since the owners of capital, being always able to purchase profit-yielding land with it, would never loan to others without an equivalent remuneration.

The Physiocrats also assigned important functions to the state, which they believed should be represented and controlled by an absolute monarch. While they held that the natural order imposes itself upon all who understand it by virtue of its own inherent superiority and that intelligent people recognize this superiority and conform themselves to it as soon as they understand it, all people are not intelligent, and even intelligent people need to be educated. The Physiocrats, therefore, assigned to the state the duty of furnishing the instruction necessary to the comprehension of the natural order and the spreading of information concerning it and of guarding it against the machinations of the ignorant. This order also requires the construction and maintenance of public works, such as roads, bridges, harbors, etc., which all persons need and use and which the state, who represents and acts for all, should supply.

In their judgment no one but an absolute hereditary monarch could be entrusted with this task. Such a person alone is able to rise above the selfishness and party strife of the actual participants in industrial and commercial operations and thus to acquire the poise and clearness and length of vision necessary to its proper performance. Of political liberty, in the sense in which people nowadays use that phrase, they did not at all approve.⁸

⁸ See *Ibid.*, pp. 40 and 41.

D. DECLINE OF THE SCHOOL

The school attained its maximum influence about the year 1767. After that date it steadily declined. Many influences worked against it. Its views regarding monarchy and despotism were not popular with most thinking people, and they were very unpopular with the *bourgeoisie*. The commercial and manufacturing classes were opposed to the school because their interests were attacked. To many influential people its principles did not appeal, and the principles were accordingly criticized, notably by the *Journal d'agriculture* and the *Gazette du commerce* and by Forbonnais in his *Principes et observations économiques* and by Grasslin in his *Essai analytique sur la richesse et sur l'impôt*. Voltaire and Rousseau were also critics.⁹

Fate and fortune seemed also to be against it. Almost immediately after the issue of the edict of 1766 establishing freedom of commerce in grain with foreign countries, the price of corn rose to such an extent that people began to complain and in some places to riot. This rise was attributed to the edict rather than to the poor crops of the year, and the Physiocrats were held responsible for the edict.

From the year 1767 on there was an anti-physiocratic party which grew steadily stronger and stronger. It debated doctrinal points with the Physiocrats and contended with them for influence with the government regarding especially the matter of corn duties. It succeeded in 1770 in securing a repeal of the edict of 1766. With the accession of Turgot to the cabinet in 1774 the pendulum swung in the other direction for a time, but only to return in 1776 with sufficient force to sweep Turgot from office as well as to secure the repeal of the edict for freedom of importation of corn which he issued in 1774.

The publication of *The Wealth of Nations* in 1776 dealt the finishing blow to the influence of the school. On both the doctrinal and the practical side this book was superior to anything the Physiocrats had written, and this fact speedily obtained public recognition. It was destined to serve as the textbook of Europe in political economy for at least a generation, and though the physiocratic school did not formally disband for many years, its importance and influence rapidly declined.

⁹ Weulersse, *op. cit.*, I, 148-154.

CHAPTER V

THE DECLINE OF MERCANTILISM IN ENGLAND

England, as well as France, outgrew the mercantilistic policies and reacted against the doctrines of the system. The outcome in her case was the gradual substitution for these policies and doctrines of those of individual liberty and laissez-faire and the development of the system of political economy expounded in *The Wealth of Nations*. We shall first trace the change of policy.

A. BREAKDOWN OF THE REGULATIVE SYSTEM

The regulative system in operation before and during the mercantile period gradually broke down. The process began probably as early as the fourteenth century and continued until it approximated completion by the middle of the nineteenth century. The most fundamental cause of this change was doubtless the love of liberty which is natural to all men and which shows itself in the form of resistance to, and the throwing-off of, restraint whenever the opportunity presents itself. The Black Death and the Peasants' Rebellion in the fourteenth century supplied such opportunities, as did also the gradual substitution of money-economy for natural-economy which characterized that and the succeeding century.

One after another the various regulative measures ceased to serve the useful purposes for which they were devised and became obstacles instead of aids to progress. When the self-interest of most of the people concerned ceased to be promoted by their enforcement, they became dead letters and were ultimately, but usually much later, removed from the statute books and dropped from memory.

Probably there never was a time when the regulations were completely enforced; and with the progress of decay in the manorial and gild systems and of the development of commerce and of the middleman class, the number of unregulated people and commercial and industrial groups increased and the enforcement of regulations upon those who were subject to them became more and more lax. The progress of the movement toward individualism and commercial and

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industrial liberty was rapid during the eighteenth century and had advanced far even before the Industrial Revolution and the publication of the *The Wealth of Nations*.

In his *Growth of English Industry and Commerce* Cunningham traces the process in detail, noting among other things the discontinuance of the practice of assessing wages, which he says had practically been forgotten by the end of the eighteenth century and that of "setting the assizes" of bread and cloth, and of attempting to supervise the cloth industry. By the middle of the eighteenth century price regulation was only occasionally and sporadically resorted to. "It is obvious," he says, "that in regard to this important part of the national economy,—the distribution of the food supply at fair prices to the public,—competition was answering better than the old method of organization could do." In the regulation of the manufacture of cloth the self-interest of the clothiers, voluntary coöperation for the prosecution of fraud, and the use of trade-marks superseded the older methods. In the field of foreign commerce the old trading companies were gradually undermined by interlopers and by the refusal of Parliament to protect their special privileges. The destruction of the elaborate system of import and export duties and bounties for which the mercantile system was responsible was a gradual process not completed until near the middle of the nineteenth century, but it began much earlier.¹

B. ANTI-MERCANTILISTIC THEORY

Ideas out of harmony with mercantilistic theory began to appear as early as the seventeenth century and became more and more numerous and influential in the eighteenth. Chief among them were the doctrines that nature and labor rather than the precious metals are the real sources of the wealth of nations, that agriculture is more fundamental and important in a nation's economy than foreign trade, that the goal of a nation's economic policy should be the adequate supply of the whole population with the necessities and conveniences of life rather than the maintenance of a favorable balance of trade, and that freedom of industry and trade will promote prosperity better than protective duties, bounties, monopolies, and privileged corporations. Pioneers of this new thought were Sir William Petty and Sir Dudley North.

¹ W. Cunningham, *The Growth of English Industry and Commerce* (Cambridge: Cambridge University Press, 1892), Book VIII, Part I, esp. pp. 268-272, 359, 360.

Petty was born near London May 26, 1623, and died December 16, 1687. He studied at the University of Oxford and served for a time in the English Navy. In 1643 he began a three years' sojourn in the Netherlands and France, chiefly for the study of medicine. On his return he lectured on medical subjects at Oxford and in 1650 was given a doctor's degree by that institution. During this period he also practised medicine with success. In 1652 he received the appointment of physician to the Army in Ireland, from which position he was soon promoted to the Secretaryship of the Lord Lieutenant of Ireland. While there he made a careful survey of the country, especially of the lands which had been confiscated by Cromwell. In the accomplishment of this work he prepared maps of the region surveyed, the most accurate which had been made up to that time.

His chief economic writings were *A Treatise of Taxes and Contributions* (1679), *Quantulumcunque or a Tract Concerning Money* (1682), and *Several Essays in Political Arithmetic*, published originally in the proceedings of the Royal Society, of which he was one of the founders and promoters, and in book form in 1731.

By "political arithmetic" he meant what we now call statistics, and his work in this field is noteworthy as one of the early beginnings of the use of the statistical method of economic research. His ideas on production, value, rent, usury, and money were decidedly anti-mercantilistic. "Labor," he said, "is the father and active principle of wealth, lands are the mother." People engaged in supplying the community with useful material things are producers, and their work is production. The labor necessary for the production of a thing determines its value, and rent is the excess of the price of the produce of land over its cost of production. A definite quantity of money is needed for the conduct of a nation's exchanges, but there can be too much as well as too little of it. One of the precious metals should be the basis of a country's currency, the other circulating like any other commodity. He was opposed to laws prohibiting the exportation of money, to usury laws, and to governmental interference with the course of industry.²

Sir Dudley North was born in London in 1644 and died in the same place in 1691. He became a distinguished merchant in the Levant trade, the chief places for his operations being Constantinople and Smyrna, where he acquired large commercial establishments. He be-

² John Kells Ingram, *A History of Political Economy* (London: A. & C. Black, Ltd., 1915), p. 49.

came a trusted counselor of the government and in the course of his life held the offices of sheriff, alderman, commissioner of customs, member of Parliament, and administrator of the estates of the Crown.

In his only book, *Discourses upon Trade*, published in 1691, he expressed ideas on the subject of money similar to those of Petty, emphasizing in addition the doctrine that the quantity needed will regulate itself spontaneously and combating the notion that stagnation in trade is due to an inadequate quantity of it. It is due rather, he declared, to a glut in the home market, to disturbances of foreign trade, or to underconsumption caused by poverty. He advocated freedom of trade, declaring that the economic relations of nations to each other are analogous to the relations to each other of cities and families within a nation, and that trade is merely an exchange of superfluities. He was opposed to all kinds of price-fixing, maintaining that prices should be left to the free operation of demand and supply. He was also opposed to other kinds of state regulation on the ground that peace, industry, freedom, and unimpeded economic activity are essential to economic prosperity. He also held that the rate of interest is determined by the demand and supply of capital and that a low rate cannot be secured by arbitrary regulations such as some of his contemporaries recommended.³

C. THE EIGHTEENTH CENTURY

In the eighteenth century evidence not only of the decline of mercantilism but of the growth of individual initiative and enterprise appear on every hand. In agriculture enclosures increased, and the capitalistic system of large estates cultivated primarily for profit was being rapidly substituted for what remained of the old manorial system of peasant holdings, common fields, etc. In industry relatively large-scale units, sometimes with establishments somewhat resembling modern factories, were making inroads on the old domestic and town methods of manufacture, and inventions of machinery for spinning and weaving textiles were starting the industrial revolution which was destined completely to transform the methods of manufacture and the lives of the people engaged in that industry. Commerce was also growing rapidly, and the old trading companies and monopolies were disintegrating under the attacks of the interlopers and the enterprise of the free-lances.

In this century also the English people achieved a more nearly

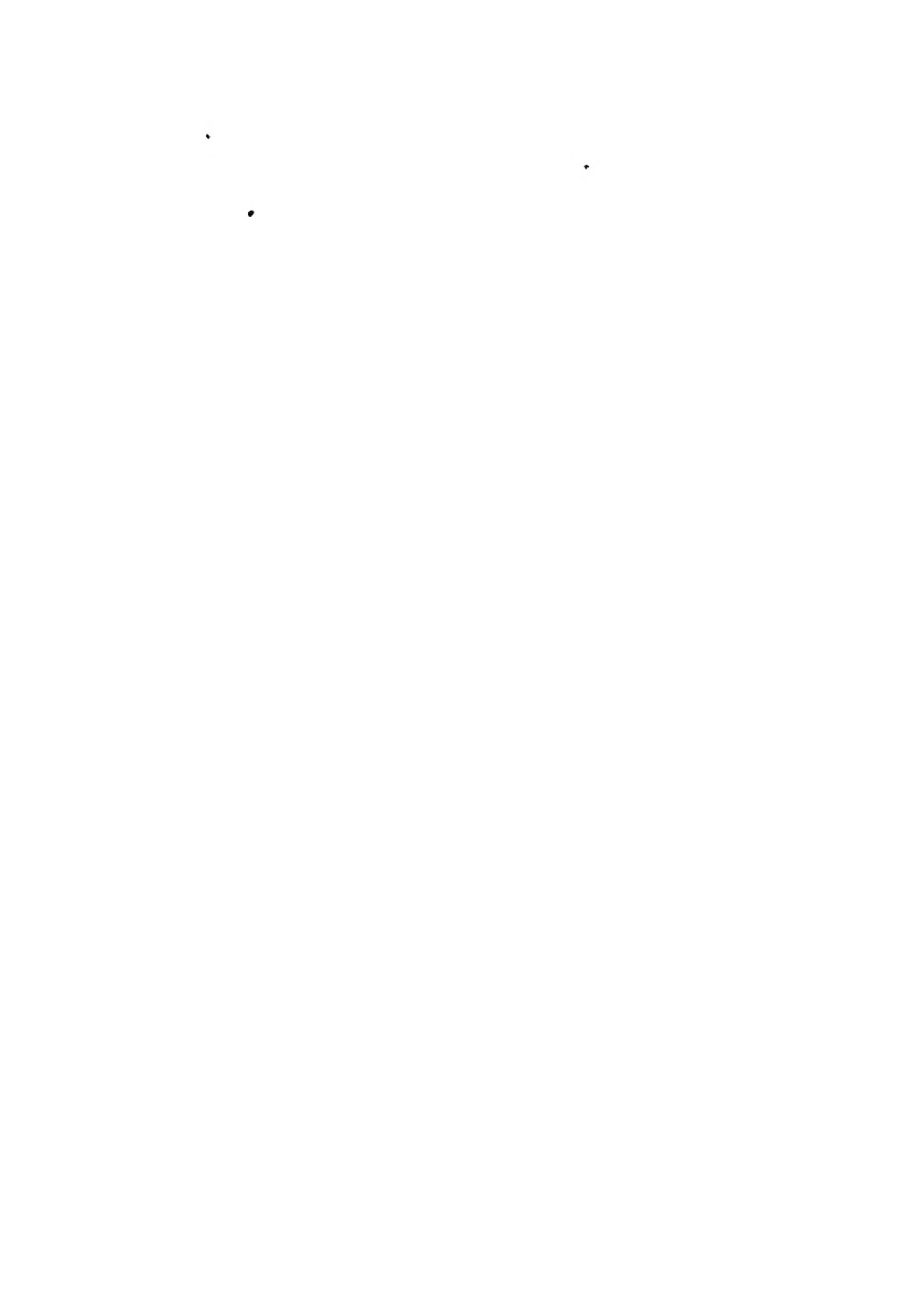
³ Ingram, *op. cit.*, p. 50.

complete control over their government, national and local, than they had ever before enjoyed. Under the Georges of the house of Hanover, whose knowledge of England and the English was small, the power of Parliament rapidly increased, that of the king decreased, and the cabinet system was introduced. Since the civil wars local government had been left largely to the justices of the peace, the municipal authorities, and the parish vestries, Parliament intervening only when so requested and in special matters. While the franchise was limited and traffic in seats in the House of Commons was common, the system of government was nevertheless representative, governmental matters were freely discussed in public and in private, and the influence of the masses made itself felt through periodicals and at the end of the century through newspapers. Public opinion had become a potent factor in government.

The interpreter of the economic life of this new epoch as well as a product of it was Adam Smith, the founder of the classical political economy.

PART II

THE DEVELOPMENT OF THE CLASSICAL POLITICAL ECONOMY



CHAPTER VI

ADAM SMITH AND THE EVOLUTION OF THE WEALTH OF NATIONS

A. LIFE OF ADAM SMITH¹

Adam Smith's life spanned the period from June 5, 1723, to July 17, 1790. He was born at Kirkcaldy, near Edinburgh, in Scotland; was educated at the Universities of Glasgow and Oxford; for three years lectured at the University of Edinburgh on English literature and political economy; and for thirteen years, 1751-1763, was professor first of logic, and later of moral philosophy, at the University of Glasgow. Then followed nearly three years of travel and residence abroad, in the capacity of tutor to the young Duke of Buccleugh, eighteen months of this time being spent in Toulouse, two months in travel in the South of France, two months in Geneva, and ten months in Paris. The remainder of his life was spent in Scotland and England, the greater part in private study and in the composition and revision of *The Wealth of Nations*. During the last twelve years of his life, 1778 to 1790, he held the office of commissioner of customs at Edinburgh, and during the last three years he was also rector of the University of Glasgow. He was never married, and his home life was made for him by his mother and by a cousin, Miss Jean Douglas, to both of whom he was very sincerely attached.

He was a man of unusually delicate and refined sentiments, of exemplary conduct throughout his life, and of great learning. His life was so far removed from the turmoil and passion of business and politics that he was able to view the course of events objectively and without prejudice; and the poise, keenness, and power of his intellect and years of unremitting effort enabled him to penetrate far beneath the surface and to discern fundamental principles. Few men of his generation were better equipped by nature and by training for the work he undertook, and into few treatises on any science has the better part of the life of so well equipped a man been put.

It is difficult to account for such a man or to point out the influences

¹ See John Rae, *Life of Adam Smith* (London: Macmillan & Co., Ltd., 1895).

which molded him. Like poets, such men are born, not made. A few of the sources from which he drew inspiration and ideas may, however, be indicated.

One of them without doubt was his teacher in moral philosophy at Glasgow, Hutcheson. According to the accounts of Smith's biographer, John Rae, and to his own testimony, this teacher influenced him more than any other man during his college days. Hutcheson was an advanced and independent thinker and an inspiring lecturer on many of the subjects which Smith afterward treated as college professor and author. Hutcheson was a liberal in theology, believing that God is a benevolent being whose will is revealed in the laws of nature rather than through "mysterious signs and providences" and who lives for the welfare of the human race, which is "the greatest happiness of the greatest number," a phrase which Hutcheson is said to have invented. He was also a strong advocate of religious, political, and economic liberty. To him may be traced the germ of Smith's theory of moral sentiments, expounded in his book bearing that title, and some of his most characteristic ideas on the subject of value, interest, and money.²

Another influence of a personal nature was exerted by David Hume, who was a personal friend and intimate associate of Smith for nearly twenty years. The youngest son of a Scottish lord, Hume was born April 26, 1711. He was broadly educated at the University of Edinburgh and in France and studied law, but turned to philosophy, in which he did distinguished work as an original thinker and author. He became also an historian of England and an essay-writer on moral, political, literary, and economic topics. As a means of earning a living he was at one time in early life connected with a mercantile establishment in Bristol and later occupied the position of secretary to General St. Clair during his incumbency of the position of ambassador to Vienna and Zurich. He was also at different times librarian of the Advocates library in Edinburgh, secretary to the British legation at Paris and Undersecretary of State in London.

Hume's views on economic subjects,³ expressed especially in his essays on commerce, money, interest, and the balance of trade, were anti-mercantilistic, resembling in many particulars those of Petty and North. He declared that the economic strength of any community depends upon "men and commodities" and especially upon its "stock

² Rae, *op. cit.*, pp. 11-15.

³ Ingram, *A History of Political Economy*, pp. 81-84.

of labor" and that money is a mere mechanism of commerce, the absolute quantity of which is a matter of indifference provided it be adequate to effect the interchange of commodities. Too much of it may be injurious, raising prices and driving foreigners out of the market. With freedom of trade between nations there need be no fear of a shortage of money, since under these conditions the precious metals will spontaneously distribute themselves according to the needs of trade. "In short," he said, "a Government has great reason to preserve with care its people and its manufactures; its money it may safely trust to the course of human affairs without fear or jealousy." He stressed the importance and advantage of the territorial division of labor and the disadvantage of the "numberless bars, obstructions, and imposts which all nations of Europe and none more than England, have put upon trade." He combated the idea that in trade between nations what one gains the other loses, maintaining on the contrary that the prosperity of one promotes that of all. "Not only as a man, but as a British subject," he said, "I pray for the flourishing commerce of Germany, Spain, Italy, and even France itself."

In an essay on taxes he criticized the physiocratic doctrine of the single tax and the idea current in his day that public debts are advantageous in themselves regardless of the purposes for which they are contracted. He was opposed to raising funds for public enterprises by loans, thus placing the burden of payment upon posterity.

His method of treatment of economic facts was historical and sociological. He emphasized their connection with other classes of social phenomena and with the development of civilization in general and connected the contemporary state of social development with the past.

Smith's connection with Hume began when the former was a lad of sixteen. He had written an abstract of Hume's *Treatise on Human Nature*, then recently published, which pleased the author so much that he presented Smith with a copy of the book and had the abstract printed in London. This was during Smith's student days. His intimate personal acquaintance with Hume did not begin before he assumed his professorship at Glasgow. After that it speedily ripened into a warm friendship. That the attachment was mutual is evident from the correspondence between them, which was intimate and which shows that they discussed with each other matters of mutual interest and consulted each other regarding their personal affairs. When Smith gave up the chair of logic at Glasgow to take that of

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moral philosophy, he urged the appointment of Hume as his successor, and Hume in turn attempted on at least one occasion to get Smith an appointment at Edinburgh. It is evident from the correspondence that Smith was consulted in advance of the publication of some of Hume's essays, while Hume followed the production of the *Theory of Moral Sentiments* and *The Wealth of Nations* with a fatherly interest.

That these men greatly influenced each other cannot be doubted, but it is not possible to trace the interactions of this mutual influence in detail. Hume was the older man and, having developed his philosophical ideas early, doubtless helped Smith in the formation of his. Hume's political economy was also developed before Smith had proceeded very far with his, but in directing the latter's thought in this field Hutcheson had the first opportunity and probably started trains of thought which Hume helped to strengthen and to enrich.

The influence of the Physiocrats upon Smith can be estimated with a considerable degree of accuracy by a comparison between his lectures on "Justice, Police, Revenue, and Arms" delivered in the University of Glasgow before his visit to France, and *The Wealth of Nations*. This comparison was made possible by the discovery of a student's notes on these lectures which came into Mr. Edwin Cannan's hands through a Mr. Charles C. Maconochie, who found them among a heap of books in his great-uncle's attic. These notes, together with a comparison with *The Wealth of Nations*, were published by Mr. Cannan in 1896. The comparison shows that, while the fundamental doctrines of *The Wealth of Nations* had been developed before Smith met the Physiocrats, indeed before they began to write, additions of considerable importance were made after his return from Paris which might have been and perhaps were the result of physiocratic influence.

The known facts regarding Smith's association with this sect are as follows: During the ten months spent by him in Paris which closed his foreign sojourn with the Duke of Buccleugh, he had access to the leading *salons* of the great capital and met its leading thinkers and statesmen, including Quesnay, Dupont, Turgot, and probably other Physiocrats. These ten months belong to the period during which these economists were rapidly gaining influence and recognition, but before they had reached the zenith of their power. Mirabeau's Tuesday receptions had not yet begun, but frequent meetings of the sect were held in Quesnay's apartments, and Dupont mentions

the fact that Smith was often there and that he freely discussed with them ideas which he contemplated embodying in his proposed book, of the existence of which in at least a tentative form he made no secret. That he frequently met Turgot and discussed economic questions with him is also certain. The latter was at that very time preparing his *Réflexions sur la formation et la distribution des richesses*, which was published three years later. Doubtless the two men discussed the leading doctrines subsequently incorporated in their respective works.

Smith owed his great opportunities in Paris partly to Hume, who was very popular there and who was in Paris long enough after Smith's arrival to introduce him to the people of influence and importance. Smith's *Theory of Moral Sentiments*, published in 1759, was also well and favorably known in Paris, having been read in the original by a good many distinguished people and having been made accessible to all through a French translation. His contact here with such men as Diderot, Marmontel, Raynol, Galiani, Morellet, Helvetius, D'Alembert, Grimm, Condillac, and Necker, not to mention many famous women, could not have been without great influence in broadening his horizon and stimulating his thought.

B. EVOLUTION OF "THE WEALTH OF NATIONS"

The beginnings of *The Wealth of Nations* may be traced back to the instruction which Smith received from Hutcheson at Glasgow. The lectures to which he listened were probably organized under the heads "Elements of Ethics," "Elements of the Law of Nature," and "Principles of Economics and Politics." At any rate, a little volume published by Hutcheson in Latin in 1745 was thus organized. When Smith became professor of moral philosophy at Glasgow, he was doubtless influenced in the organization of his own lectures by the plan of his old teacher and predecessor in the chair. Dugald Stewart, one of Smith's biographers, says that he learned from a student that Smith's lectures were organized under the heads "Natural Theology," "Ethics," "Jurisprudence," and "Political Regulations Founded upon Expediency and Calculated to Increase the Riches, the Power and the Prosperity of the State." The student's notes published by Cannan were headed "Lectures on Justice, Police, Revenue, and Arms," and doubtless covered the third and fourth parts of this course.

Smith's book entitled *Theory of Moral Sentiments* and published

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in 1759 was doubtless an outgrowth of the second part, and *The Wealth of Nations* of the fourth. This latter part was doubtless suggested by his old master's lectures on "Principles of Economics and Politics." A comparison of the student's notes published by Mr. Cannan with Hutcheson's little book above mentioned indicates that Smith built his course on Hutcheson's, expanding and modifying it, however, to such a degree that the resemblance between the two is confined to a few points only.

The evolution of *The Wealth of Nations* from Smith's lectures may be assumed from the concluding paragraph of his *Theory of Moral Sentiments*, in which he promised later to discuss such subjects as "the general principles of law and government, and of the different revolutions that they have undergone in the different ages and periods of society, not only in what concerns justice, but in what concerns policy, revenue, and arms, and whatever else is the object of law"; and from the preface to the sixth edition of this book, in which he notes that *The Wealth of Nations* was at least a partial fulfilment of that promise.

That the book was actually begun in Toulouse is evident from a letter written by Smith to Hume in July, 1764.⁴ The plan in Smith's mind at that time was probably larger than the one he actually executed. Very likely it was the one he referred to in the *Theory of Moral Sentiments* and which included the subject of justice or jurisprudence as well as those of police, revenue, and arms.

The ten years succeeding his return from France were spent in the studies incident to and the composition of *The Wealth of Nations*. The first six months of this period were spent in London, where he had access to the British Museum and where he conferred with members of the cabinet and many other persons in possession of the information he desired. He then spent seven years in study and writing at his old home at Kirkcaldy, where he had access to the libraries of Edinburgh. By 1773 he had a manuscript completed, and in the spring of that year he went to London again to give it the finishing touches and to provide for its publication. Evidently he found much more to do than he anticipated, for the finishing touches occupied three years.

From the foregoing it is obvious that *The Wealth of Nations* was the product of the better part of Adam Smith's life. From at least 1752 to 1776 he was thinking, studying, lecturing, and working on

⁴ Quoted by Rae, *op. cit.*, pp. 178, 179.

the subject. His character, intellect, and leisure formed a rare combination. Few books have been written on any subject under similarly favorable conditions. It ought to have been a great book, and that it is one of the world's great books is the verdict of history.

CHAPTER VII

ANALYSIS OF *THE WEALTH OF NATIONS*

A. DIVISION OF LABOR AND THE WEALTH OF NATIONS

1. *Keynote and Plan of the Book.*

In his opening paragraph Smith makes a statement which at the same time sounds the keynote of his book and explains its most important subdivisions. It reads as follows ¹ (the quotation has been reparagraphed):

"The annual labor of every nation is the fund which originally supplies it with all the necessities and conveniences of life which it annually consumes, and which consist always either in the immediate produce of that labour, or in what is purchased with that produce from other nations.

"Accordingly, therefore, as this produce, or what is purchased with it, bears a greater or smaller proportion to the number of those who are to consume it, the nation will be better or worse supplied with all the necessities and conveniences for which it has occasion.

"But this proportion must in every nation be regulated by two different circumstances: first, by the skill, dexterity, and judgment with which its labour is generally applied; and secondly, by the proportion between the number of those who are employed in useful labor, and that of those who are not so employed. . . . Whatever be the soil, climate, or extent of territory of any particular nation, the abundance or scantiness of its annual supply must, in that particular situation, depend upon these two circumstances."

The first topic to which he gives attention is the "skill, dexterity, and judgment with which [its] labour is generally applied," and to this he devotes the first book; and the second is "the proportion between the number of those who are employed in useful labour and that of those who are not so employed" and to this he devotes the second book. In these two books he expounds his fundamental doctrines. In Book III he discusses what he calls "The Different Progress

¹ Quotations are from, and references are to, the edition published by T. Nelson and Sons, London, in 1891, with introduction and notes by J. Shield Nicholson.

of Opulence in Different Nations," explaining in the light of the principles he has expounded the reasons why some have prospered and others have declined. This book is divided into four chapters, of which the first is entitled "Of the Natural Progress of Opulence"; the second, "Of the Discouragement of Agriculture in the Ancient States of Europe, after the Fall of the Roman Empire"; the third, "Of the Rise and Progress of Cities and Towns after the Fall of the Roman Empire"; and the fourth, "How the Commerce of the Towns Contributed to the Improvement of the Country."

In his fourth book he examines critically the mercantile and physiocratic systems, giving what might be called a history of the science of political economy to his time; and the fifth he devotes to public finance, under the head "Of the Revenue of the Sovereign or Commonwealth," dividing it into three subtopics entitled respectively "Of the Expenses of the Sovereign or Commonwealth," "Of the Sources of the General or Public Revenue of the Society," and "Of the Public Debts."

2. *Labor as the Source of the Wealth of Nations.*

In making the statement that "the annual labor of a nation is the fund that originally supplies it with all the necessities and conveniences of life," Smith did not forget that nature plays an important rôle in production. The closing sentence of the passage quoted above indicates this, as do many other passages which might be quoted. His thought evidently was that the physical environment of every nation is fixed and unchangeable and that labor is variable. Given the physical environment, variations in the wealth of nations depend upon the labor factor. In an explanation of the differences between the wealth of two or more nations, of course differences in physical environment would have to be considered as well as differences in the labor factor. Of this Smith was well aware.

It is possible that the emphasis here laid on the labor factor was intended by Smith to bring his point of view into contrast with that of the Physiocrats. Whether intended or not, it certainly accomplishes that result. The Physiocrats built their system about the proposition that land alone is productive and that the wealth of nations is connected with the *produit net* in agriculture as effect to cause. Smith built his system about an essentially different proposition, but recognized and appropriated the element of truth in the fundamental proposition of the Physiocrats.

3. *The Nature, Advantages, Causes, and Consequences of the Division of Labor.*

In answer to the question upon what depends "The skill, dexterity, and judgment with which [the] labour [of a nation] is generally applied," the subject of Book I, Smith declares (Book I, Ch. 1, p. 2) that "the greatest improvements in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed or applied seem to have been the effects of the division of labour." This, therefore, is the first and the chief topic of Book I. The second one, entitled "Of the order according to which [its] produce is naturally distributed among the different ranks of the people," is clearly a digression, probably added after his visit to France and suggested by the Physiocrats. It could be omitted without in any way interfering with the argument of the first two books.

Under the head "Division of labor" Smith included "The separation of different trades and employments" as well as the separation of processes within each trade, and held that this separation "is not originally the effect of any human wisdom, which foresees and intends that general opulence to which it gives occasion," but "the necessary, though very slow and gradual consequence of a certain propensity in human nature, which has in view no such extensive utility; the propensity to truck, barter, and exchange one thing for another" (Book I, Ch. 2, p. 6). "Whether this propensity be one of those original principles in human nature, of which no future account can be given, or whether, as seems more probable, it be the necessary consequence of the faculties of reason and speech" he does not say, but he insists that "it is common to all men." The division of labor, therefore is rooted in human nature and is one of those ultimate facts with which science may begin and on which it may build.

The advantage of the division of labor is a great increase in the productive power of labor. He illustrates this in the case of the manufacture of pins, reaching the conclusion that the laborers employed in this manufacture "if they had all wrought separately and independently, and without any of them having been educated to their particular business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, certainly not the two hundred and fortieth, perhaps not the four thousand eight hundredth part of what they are at present capable of performing, in consequence

of a proper division and combination of their different operations" (Book I, Ch. 1, p. 3).

The explanation of this great increase in productivity he attributes to "three different circumstances: first, to the increase of dexterity in every particular workman; secondly, to the saving of the time which is commonly lost in passing from one species of work to another; and lastly, to the invention of a great number of machines which facilitate and abridge labour, and enable one man to do the work of many" (Book I, Ch. 1, p. 4).

Some of the consequences of the division of labor he brings out in the following passage (Book I, Ch. 1, p. 5): "It is the great multiplication of the productions of all the different arts, in consequence of the division of labor, which occasions in a well-governed society that universal opulence which extends itself to the lowest ranks of the people. Every workman has a great quantity of his own work to dispose of beyond what he himself has occasion for; and every other workman being exactly in the same situation, he is enabled to exchange a great quantity of his own goods for a great quantity, or what comes to the same thing, for the price of a great quantity of theirs. He supplies them abundantly with what they have occasion for, and they accommodate him as amply with what he has occasion for, and a general plenty diffuses itself through all the different ranks of the society."

4. *Limitations of the Extent to Which the Division of Labor May Be Carried.*

The importance assigned to the division of labor led Smith to inquire into the extent to which it could be carried and to the limitations upon its extension. In this connection he considers as determining influences the nature of the occupation, the extent of the market, and the machinery of commerce. In agriculture, for example, the division of labor cannot be carried so far as in manufactures, and in some manufacturing industries it can be carried further than in others. The nature of the processes involved is the determining factor here, and there is obviously a limit to which processes can be divided. That limit is found at different points in different industries.

Whether or not the division of labor can be carried to the point rendered possible by the nature of the industry will depend in part upon the extent of the market. "As it is the power of exchanging,"

he says (Book I, Ch. 1, p. 8), "that gives occasion to the division of labor, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market. When the market is very small, no person can have any encouragement to dedicate himself entirely to one employment, for want of the power to exchange all that surplus part of the produce of his own labor, which is over and above his own consumption, for such parts of the produce of other men's labour as he has occasion for."

The extent of the market is conditioned by the facilities for transportation and the density of population. In order to trade, people must be able to communicate with each other and to send goods from place to place without too great expenditure of time and labor. Smith explains the location of the early civilizations on the seacoasts and in the great river valleys as due to the facilities for easy and cheap transportation by water which these locations afforded. He also notes the fact that certain occupations, like that of a porter for example, can be carried on only in a large town, because only when large numbers of people live in close proximity to each other is there a sufficient amount of that kind of work to be done to occupy the time of one or more persons.

The necessary connection between exchange and the division of labor accounts for Smith's treatment of the subject of money at this point. In his discussion money is regarded as an instrumentality for the facilitation of exchange without which commerce on a large scale would be impossible; hence its importance to the extension of the division of labor.

The subject of money suggests to Smith the topic of prices and this in turn that of distribution—rent, wages, and profits, according to his view, being the component parts of the price of commodities. The illogical character of this arrangement of topics suggests the probability that the treatment of this latter topic was an afterthought, suggested perhaps by the Physiocrats and incorporated at this point for lack of a better place. Neither it nor the topic of prices throws any light on the subject of the division of labor, which is the subject under consideration in this book.

5. *Capital and the Division of Labor.*

The extent to which the division of labor will be carried under the conditions and limitations imposed by the extent of the market, the density of population, and the machinery of commerce depends upon

the accumulation of what Smith calls "stock." His argument is that, after division of labor has become common, the satisfaction of the greater part of each person's wants is accomplished by the sale of his surplus products, but that the accumulation of surplus products is rendered possible only by a previous accumulation for the maintenance of the worker during the period of production. In his own words (Book II, Introd., p. 111), "a stock of goods of different kinds, therefore, must be stored up somewhere, sufficient to maintain him, and to supply him with the materials and tools of his work, till such time at least as both these events [the production and sale of his own goods] can be brought about."

The next step in his argument is that the extent to which the division of labor is carried is proportional to the amount of stock accumulated. "As the accumulation of stock must," he says (*ibid.*), "in the nature of things, be previous to the division of labour, so labour can be more and more subdivided in proportion only as stock is previously more and more accumulated. . . . As the division of labor advances, therefore, in order to give constant employment to an equal number of workmen, an equal stock of provisions, and a greater stock of materials and tools than what have been necessary in a ruder state of things, must be accumulated beforehand."

Not only is the amount of industry at any particular time proportioned to the accumulation of stock, according to Smith, but also the efficiency of each industry. "The quantity of industry," he says (*ibid.*), "therefore, not only increases in every country with the increase of stock which employs it, but, in consequence of this increase, the same quantity of industry produces a much greater quantity of work."

B. CAPITAL AND THE WEALTH OF NATIONS

The second main topic which Smith's plan required him to treat was *the proportion of the total population of a nation which is engaged in productive labor*. He finds the solution of this problem in the amount of the nation's capital and the manner in which it is employed.

1. *The Functions of Capital.*

In many connections Smith describes the function of capital as *the setting of labor in motion*. By this he meant that capital supplies labor with the food, tools, buildings, etc., necessary for the conduct of productive processes in a society based upon division of labor. The argument outlined in the closing paragraphs of the preceding chapter is ap-

plicable here. An accumulation of capital is necessary before the division of labor can be carried very far, and beyond a certain point the extension of the division of labor and its efficiency in promoting skill, dexterity, and judgment in the application of labor is proportional to the amount of such accumulation. Capital, therefore, is the force which sets the productive machinery of society in motion and determines its efficiency. The proportion of the total population of a nation, therefore, which can be employed in productive labor is determined by the amount of its capital and the manner in which it is employed. But what is meant by capital, what is the distinction between productive and unproductive labor, and how is capital accumulated? These are the topics treated in Book II.

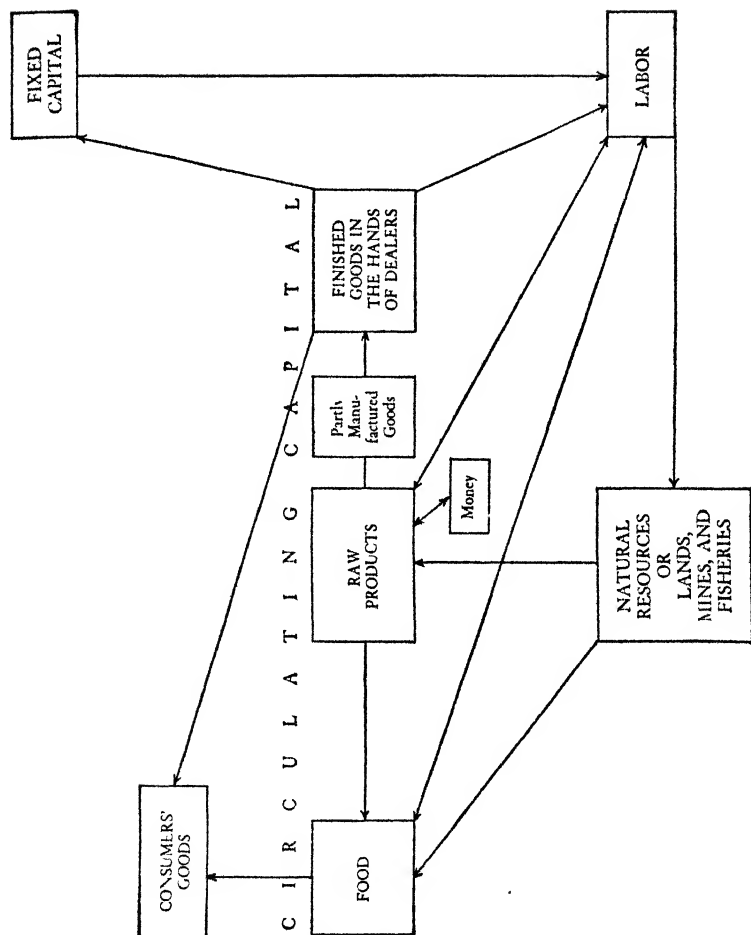
2. *Definition, Classification, and Sources of Capital.*

Smith defines capital as that portion of the stock of an individual or of a society which affords or yields a revenue. It is contrasted with that portion which is reserved or used for immediate consumption. In substance this definition does not differ from the one commonly employed later; namely, that capital is that portion of the wealth of society employed in the production of other wealth, since the only means by which society can derive a revenue from wealth is by its employment in the production of other wealth.

According to the manner in which capital yields a revenue to its owner Smith classified it as *fixed* and *circulating*. Fixed capital is that which "affords a revenue or profit without circulating or changing masters." It consists of "useful machines and instruments of trade which facilitate and abridge labor," "of all those profitable buildings which are the means of procuring a revenue," "of the improvements of land," and "of the acquired and useful abilities of all the inhabitants and members of society."

Circulating capital is that which yields a revenue by circulating or changing hands and is composed (a) of money; (b) "of the stock of provisions which are in the possession of the butcher, the grazier, the farmer, the corn merchant, the brewer, etc."; (c) of the raw materials of manufacture; (d) of partly manufactured goods; and (e) of completely manufactured goods "not yet disposed of or distributed to the proper consumers."

Fixed capital is derived from circulating capital and circulating capital from "lands, mines, and fisheries." Smith's conception of the entire productive process may be illustrated by the following diagram:



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Fixed and circulating capital sets labor in motion, which operates upon natural resources in the forms of lands, mines, and fisheries in such a manner as to bring forth certain kinds of food and raw products. It further transforms some of the raw products into food and others into finished goods which in turn pass, some into the category of consumers' goods, and some into that of fixed capital, while some help directly to set labor in motion. Some of the food also passes directly into the category of consumers' goods, and the remainder helps to set labor in motion again. All the fixed capital is used in setting labor in motion.

3. *The Gross and the Net Revenue of Society.*

The above analysis reveals a distinction which Smith, as well as the Physiocrats, regarded as important; namely, that between the gross and the net revenue of society. "The gross revenue of all the inhabitants of a great country," he says (Book II, Ch. II, pp. 115-116), "comprehends the whole annual produce of their land and labour; the net revenue, what remains free to them, after deducting the expense of maintaining first, their fixed, and, secondly, their circulating capital, or what, without encroaching upon their capital, they can place in their stock reserved for immediate consumption, or spend upon their subsistence, conveniences and amusements. Their real wealth, too, is in proportion, not to their gross, but to their net revenue." In the above diagram what is marked "consumers' goods" is net revenue, according to Smith's analysis, and the enlargement of this is the real goal of the economic activities of society. In Smith's thought this fund occupied a place resembling closely that occupied in the minds of the Physiocrats by the *produit net* in agriculture.

The costs of the maintenance of the fixed and circulating capital of society are, first, a sum sufficient to replace the encroachments made upon fixed capital, and second, a sum sufficient for the maintenance of the money supply. Smith did not regard the replacement of the three other categories of circulating capital—namely, provisions, materials and finished work—as a deduction from net revenue, but included under this latter head all of these three categories that is not annually transferred to the category of fixed capital. This method of procedure enabled him to avoid the apparent anomaly of excluding the food and finished goods consumed by laborers from the category of net revenue, but it involved him in the equally striking anomaly of including in net revenue the materials upon which the laborer operates

and such finished work as he requires not for his personal consumption but for his work, which, according to Smith's analysis, could not be included under the head of fixed capital.

Of these two charges against society's gross revenue Smith selects for the most extended treatment that connected with the circulating medium. In order to show how this charge may be made as small as possible, Smith explains the use of paper currency. "The substitution of paper in the room of gold and silver money," he says (Book II, Ch. II, p. 108), "replaces a very expensive instrument of commerce with one much less costly, and sometimes equally convenient. Circulation comes to be carried on by a new wheel, which it costs less both to erect and to maintain than the old one."

The explanation of how the substitution takes place led Smith to an interesting digression on the subject of banking, which shows wide and accurate knowledge and a thorough understanding of that important instrumentality of modern commerce, then only in the early stages of its development.

4. *Effect of Different Employments of Capital.*

To the two methods of increasing the net revenue of society suggested by Smith in the discussion already reviewed, namely, the increase in its capital stock and the decrease of the cost of maintaining that stock, he added a third, namely, a better application of the capital fund. "Though all capitals," he says (Book II, Ch. V, p. 147), "are destined for the maintenance of productive labour only, yet the quantity of that labour, which equal capitals are capable of putting in motion, varies extremely according to the diversity of their employment; as does likewise the value which that employment adds to the annual produce of the land and labour of the country."

His classification of the ways in which the capital of a nation may be employed is as follows (*ibid.*): "A capital may be employed in four different ways; either, first, in procuring the rude produce annually required for the use and consumption of the society; or secondly, in manufacturing and preparing that rude produce for immediate use and consumption; or, thirdly, in transporting either the rude or manufactured produce from the places where they abound to those where they are wanted; or, lastly, in dividing particular portions of either into such small parcels as suit the occasional demands of those who want them. In the first way are employed the capitals of all those who undertake improvement or cultivation of lands, mines, or fisheries;

in the second, those of all master manufacturers; in the third, those of all wholesale merchants; and in the fourth, those of all retailers. It is difficult to conceive that a capital should be employed in any way which may not be classed under some one or other of those four."

This same classification slightly expanded is elsewhere described as the employment of capital in agriculture, manufactures, and commerce, the latter subdivided into domestic and foreign commerce instead of as above into wholesale and retail trade.

Smith attempts to show that while these different branches of economic activity are mutually dependent and necessary each to the others, the amount of labor set in motion by the same amount of capital is greatest in agriculture, next in magnitude in manufactures, next in domestic commerce, and least in foreign commerce. From the principle that labor is the real productive agency he concludes that the magnitude of the product is proportional to the amount of labor set in motion, and therefore that agriculture is the most productive industry and that manufactures and domestic and foreign commerce rank in productivity after agriculture in the order named.

That the same amount of capital sets in motion more labor in agriculture than in manufactures, in manufactures than in domestic commerce, and in domestic than in foreign commerce he shows by noting the relative amounts of capital per laborer required in each of these industries. In agriculture little or no capital in the form of raw products is required, the soil itself taking the place of these, and the amount of capital in the form of tools and machinery is, proportionately to the number of laborers, less than in manufactures. Moreover, he adds, "no equal quantity of productive labor employed in manufactures can ever occasion so great a reproduction. In them nature does nothing; man does all; and the reproduction must always be in proportion to the strength of the agents that occasion it. The capital employed in agriculture, therefore, not only puts in motion a greater quantity of productive labour than any equal capital employed in manufactures; but in proportion, too, to the quantity of productive labour which it employs, it adds a much greater value to the annual produce of the land and labour of the country to the real wealth and revenue of its inhabitants. Of all the ways in which a capital can be employed, it is by far the most advantageous to society." (Book II, Ch. V, p. 149.)

In this statement Smith probably reveals the influence of the Physiocrats. The idea that in agriculture, and only in agriculture, does nature work together with man, expressed here as well as elsewhere—notably

in his chapter on the rent of land—shows that Smith accepted one of their fundamental doctrines and that his difference with them regarding the question of the productivity of the different industries was centered about the use of the word *productive*, rather than about their chief contention.

However, the proposition which Smith is mainly concerned in expounding in his chapter "Of the Different Employments of Capitals" is not the relative productivity of the same amount of labor in agriculture and other industries, but the amount of labor which the same amount of capital will set in motion in the different branches of production. From this point of view the work of nature in agriculture is that of the substitution of land, etc., for the raw products and some of the machines required in manufactures, and thus the saving of capital.

In commerce, both domestic and foreign, the capital, especially in the form of finished goods, employed per laborer is very much greater than in any branch of manufacturing, and hence the same amount sets in motion less labor. In foreign commerce a part, and in the foreign carrying trade nearly all, of the labor set in motion belongs to foreign countries, and to that extent increases the wealth of the foreign and not of the home country. For this reason the same amount of capital employed in domestic commerce would be more advantageous to the nation, since it would set in motion more domestic labor. For the same reason, of the two branches of foreign commerce which he mentions, the foreign carrying trade and what he calls the foreign trade of consumption, by which he means the purchase of goods in one country and their sale in another, the former is the more advantageous.

This discussion raises the question of the limit to the amount of capital that may be employed in any industry or in any nation. That there is such a limit is clearly implied, though not directly stated, in this part of Smith's discussion. Here he is chiefly concerned with the best application of the capital of a nation which does not possess more, but rather less, than it might conceivably use, and his point is that, if a nation's capital is inadequate for all possible purposes, agriculture should receive first attention. He says (Book II, Ch. V, p. 150):

"When the capital of any country is not sufficient for all those three purposes (namely; agriculture, manufactures and commerce) in proportion as a greater share of it is employed in agriculture, the greater will be the quantity of productive labour which it puts into motion within the country; as will likewise be the value which its employment adds to the annual produce of the land and labour of the society. After agriculture, the capital

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employed in manufactures puts into motion the greatest quantity of productive labour, and adds the greatest value to the annual produce. That which is employed in the trade of exportation has the least effect of any of the three.

"The country, indeed, which has not capital sufficient for all those three purposes, has not arrived at that degree of opulence for which it seems naturally destined. To attempt, however, prematurely, and with an insufficient capital, to do all the three, is certainly not the shortest way for a society, no more than it would be for an individual, to acquire a sufficient one. The capital of all the individuals of a nation has its limits, in the same manner as that of a single individual, and is capable of executing only certain purposes. The capital of all the individuals of a nation is increased in the same manner as that of a single individual, by their continually accumulating and adding to it whatever they save out of their revenue. It is likely to increase the fastest, therefore, when it is employed in the way that affords the greatest revenue to all the inhabitants of the country, as they will thus be enabled to make the greatest savings. But the revenue of all the inhabitants of the country is necessarily in proportion to the value of the annual product of their land and labour."

This passage, as well as the one which follows in which he discusses the policy proper for the American Colonies, suggests the natural stages in the evolution of a nation's industries. In the first, agriculture should receive chief attention, manufacturing and commerce being left to more advanced nations. Next in order of development would come manufacturing industries. This stage would be reached when the nation's capital had increased to such a degree that a part could be spared for manufactures without infringing upon the amount needed for the most complete development of agriculture. Next in order of development would come domestic commerce, and last of all foreign commerce.

That Smith did not consider of practical importance the question of the limits to the amount of capital that might possibly be employed within a nation is evident from the following statement (Book II, Ch. V, p. 151): "The course of human prosperity, indeed, seems scarce ever to have been of so long continuance as to enable any great country to acquire capital sufficient for all those three purposes; unless, perhaps, we give credit to the wonderful accounts of wealth and cultivation of China, of those of ancient Egypt, and of the ancient state of Indostan. Even those three countries, the wealthiest, according to all accounts, that ever were in the world, are chiefly renowned for their superiority in agriculture and manufactures. They do not appear to

have been eminent for foreign trade. The ancient Egyptians had a superstitious antipathy to the sea; a superstition nearly of the same kind prevails among the Indians; and the Chinese have never excelled in foreign commerce. The greater part of the surplus produce of all those three countries seems to have been always exported by foreigners, who gave in exchange for it something else, for which they found a demand there, frequently gold and silver."

5. *Productive and Unproductive Labor.*

The labor which capital sets in motion is what Smith calls "productive labor," but there is another kind, otherwise set in motion, which he calls "unproductive labor" and which performs a very different function in the national economy. The former kind "adds to the value of the subject upon which it is bestowed"; the latter does not. As a type of the former he takes a manufacturer; and of the latter, a menial servant. "A manufacturer," he says (Book II, Ch. III, p. 135), "adds generally to the value of the materials which he works upon, that of his own maintenance and of his master's profit. The labour of a menial servant, on the contrary, adds to the value of nothing. . . . A man grows rich by employing a multitude of manufacturers; he grows poor by maintaining a multitude of menial servants."

Under the head "unproductive labor," with menial servants, he classes "the sovereign . . . with all the officers, both of justice and war, who serve under him, and the whole army and navy." "In the same class must be ranked," he says (Book II, Ch. III, p. 136), "some both of the greatest and most important, and some of the most frivolous professions; churchmen, lawyers, physicians, men of letters of all kinds, players, buffoons, musicians, opera singers, opera dancers, etc. The labour of the meanest of these has a certain value, regulated by the very same principles which regulate that of every other sort of labour; and that of the noblest and most useful produces nothing which could afterwards purchase or procure an equal quantity of labour. Like the declamation of the actor, the harangue of the orator, or the tune of the musician, the work of all of them perishes in the very instant of its production."

Since the wealth of a nation depends upon the proportion that its productive laborers bear to the total population, including, of course, unproductive laborers, it follows that the former class should be as large, and the latter as small, as possible, provided, of course, that the increase of the wealth of the nation is to be desired. This latter ques-

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tion Smith does not consider. His task was to show how national wealth is increased and decreased, regardless of its desirability or undesirability; and to him it was evident that unproductive laborers are a source of expense to a nation. What is taken from the gross revenue of society for their support diminishes by the same amount the fund of capital, and since this fund sets productive labor in motion, it diminishes the producing power of the nation.

6. *The Size of the Capital Fund of Society.*

Since the magnitude of the capital fund of society is the chief determining factor in its productivity, a consideration of the influences which determine that magnitude should occupy an important place in a treatise on the wealth of nations. According to Smith, the chief among these is *parsimony*, or what his successors commonly called the *instinct* to save. In conflict with this is *prodigality* or the *instinct to lavish expenditures on immediate gratification and misconduct*. "Capitals," he says (Book II, Ch. III, p. 138), "are increased by parsimony, and diminished by prodigality and misconduct. Whatever a person saves from his revenue he adds to his capital, and either employs it himself in maintaining an additional number of productive hands, or enables some other person to do so, by lending it to him for an interest, that is, for a share of the profits. As the capital of an individual can be increased only by what he saves from his annual revenue, or his annual gains, so the capital of a society, which is the same with that of all the individuals who compose it, can be increased only in the same manner."

The immediate effects of the operation of these human instincts (parsimony, prodigality, misconduct) are the same; that is, all three result in the consumption of wealth; but their ultimate effects are very different. Saving ultimately results in the employment of productive labor and consequently in the reproduction and more than the reproduction of what was consumed, while prodigality and misconduct result in the mere destruction of wealth without any reproduction. "What is annually saved," says Smith (Book II, Ch. III, p. 139), "is as regularly consumed as what is annually spent, and nearly in the same time too: But it is consumed by a different set of people. That portion of his revenue which a rich man annually spends, is, in most cases, consumed by idle guests and menial servants, who leave nothing behind them in return for their consumption. That portion which he annually saves, as, for the sake of the profit, it is immediately employed

as a capital, is consumed in the same manner, and nearly in the same time too, but by a different set of people; by laborers, manufacturers, and artificers, who reproduce with a profit the value of their annual consumption. His revenue, we shall suppose, is paid him in money. Had he spent the whole, the food, clothing, and lodging, which the whole could have purchased, would have been distributed among the former set of people. By saving a part of it, as that part is, for the sake of the profit, immediately employed as capital, either by himself or by some other person, the food, clothing, and lodging which may be purchased with it, are necessarily reserved for the latter. The consumption is the same, but the consumers are different."

The influences which strengthen and develop the instincts of parsimony and prodigality respectively Smith did not attempt fully to explain. He expressed the belief, however, that the former is a more persistent trait of human nature than the latter and that it tends to increase in strength. For example, he maintained that the proportion between the fund "destined for replacing a capital" and that which is destined for unproductive consumption is greater in a rich than in a poor country, and this, according to his reasoning, implies that the instinct of saving is relatively more powerful in the former.

7. Expenditures on Durable vs. Expenditures on Perishable Goods.

According to Smith, the former type of expenditure contributes to public opulence more than the latter. "The revenue of an individual," he says (Book II, Ch. III, pp. 142 and 143), "may be spent either on things which are consumed immediately, and in which one day's expense can neither alleviate nor support that of another; or it may be spent on things more durable, which can therefore be accumulated, and in which every day's expense may, as he chooses, either alleviate or support and heighten the effect of that of the following day. . . . Were two men of equal fortune to spend their revenue, the one chiefly in the one way, the other in the other, the magnificence of the person whose expense had been chiefly in durable commodities, would be continually increasing, every day's expense contributing something to support and heighten the effect of that of the following day; that of the other, on the contrary, would be no greater at the end of the period than at the beginning. The former too would, at the end of the period, be the richer of the two. He would have a stock of goods of some kind or other, which, though it might not be worth all that it cost, would be worth something. No trace or vestige of the expense

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of the latter would remain, and the effects of ten or twenty years' profusion would be as completely annihilated as if they had never existed.

"As the one mode of expense is more favorable than the other to the opulence of an individual, so it is likewise to that of a nation. The houses, the furniture, the clothing of the rich, in a little time, become useful to the inferior and middling ranks of people. They are able to purchase them when their superiors grow weary of them; and the general accommodation of the whole people is thus gradually improved, when this mode of expense becomes universal among men of fortune."

C. GOVERNMENT AND THE WEALTH OF NATIONS

Government affects the wealth of a nation through its expenditures and the methods by which it raises its revenues and through its regulation or non-regulation of the activities of the individuals of which the nation is composed. Smith considers the first of these topics in Book V and the second in Book IV in his discussion of what he calls the commercial and the agricultural systems.

The physiocratic, the chief of the agricultural systems, which he examined at length and criticized in some respects, received his unqualified approval in one respect, namely, "in representing perfect liberty as the only effectual expedient for rendering this annual reproduction the greatest possible" (Book IV, Ch. IX, p. 282). Next to the last paragraph of Book IV he expresses his allegiance to the same principle and outlines the duties of government in the following words (Ch. IX, p. 286):

"All systems, either of preference or restraint, therefore, being thus completely taken away, the obvious and simple system of natural liberty establishes itself of its own accord. Every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest in his own way, and to bring both his industry and capital into competition with those of any other man, or order of men. The sovereign is completely discharged from a duty, in the attempt to perform which he must always be exposed to innumerable delusions, and for the proper performance of which, no human wisdom or knowledge could ever be sufficient; the duty of superintending the industry of private people, and of directing it towards the employment most suitable to the interests of the society. According to the system of natural liberty, the sovereign has only three duties to attend to; three duties of great importance, indeed, but plain and intelli-

gible to common understandings; first, the duty of protecting the society from the violence and invasion of other independent societies; secondly, the duty of protecting, as far as possible, every member of the society from the injustice or oppression of every other member of it, or the duty of establishing an exact administration of justice; and, thirdly, the duty of erecting and maintaining certain public works, and certain public institutions, which it can never be for the interest of any individual, or small number of individuals to erect and maintain; because the profit could never pay the expense to any individual, or small number of individuals, though it may frequently do much more than repay it to a great society."

1. *Self-Interest and the Employment of Capital.*

Smith's reason for believing that the application of the principle of liberty would yield the best results in the long run was his conviction that the self-interest of individuals would lead them to employ their capitals so as to set in motion the largest possible amount of productive labor. To prove this, in the second chapter of the fourth book he indicated what are the most profitable uses individuals can make of their capital under different conditions and concludes that under all circumstances self-interest will lead them to do precisely what they ought to do in the public interest. "Every individual," he says (p. 183), "is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of society, which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to the society."

In proof of this he maintains first (p. 183), "that every individual endeavors to employ his capital as near home as he can and consequently as much as he can in the support of domestic industry"; and second (p. 184), that "every individual who employs his capital in the support of domestic industry necessarily endeavors so to direct that industry, that its produce may be of the greatest possible value."

He then adds (pp. 184-185): "As every individual, therefore, endeavors as much as he can, both to employ his capital in the support of domestic industry, and so to direct that industry that its produce may be of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security;

and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain; and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest, he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good. It is an affectation, indeed, not very common among merchants, and very few words need be employed in dissuading them from it.

"What is the species of domestic industry which his capital can employ, and of which the produce is likely to be of the greatest value, every individual, it is evident, can in his local situation judge much better than any statesman or lawgiver can do for him. The statesman, who should attempt to direct private people in what manner they ought to employ their capitals, would not only load himself with a most unnecessary attention, but assume an authority which could safely be trusted, not only to no single person, but to no council or senate whatever, and which would nowhere be so dangerous as in the hands of a man who had folly and presumption enough to fancy himself fit to exercise it."

2. *The Effects of Government Interference.*

In a negative form Smith's argument is that interference with the free play of self-interest necessarily diverts capital from more to less profitable employments. He presents this argument (Book IV, Ch. II, p. 185) in the form of a detailed examination of the effects of different forms of interference, beginning with restraints upon importation:

"To give the monopoly of the home st as to the produce of domestic industry, in any particular art or man^{to} picture is, in some measure, to direct private people in what manner ^{they} ought to employ their capitals, and must, in almost all cases, be either ^a useless or a hurtful regulation. If the produce of domestic can be brought there as cheap as that of foreign industry, the regulation is evidently useless. If it cannot, it must generally be hurtful. It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. The tailor does not attempt to make his own shoes, but buys them of the shoemaker. The shoemaker does not attempt to make his own clothes, but employs a tailor. The farmer attempts to make neither the one nor the

other, but employs those different artificers. All of them find it for their interests to employ their whole industry in a way in which they have some advantage over their neighbors, and to purchase with a part of its produce, or what is the same thing, with the price of a part of it, whatever else they have occasion for.

“What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage. The general industry of the country being always in proportion to the capital which employs it, will not thereby be diminished, no more than that of the above mentioned artificers; but only left to find out the way in which it can be employed with the greatest advantage. It is certainly not employed to the greatest advantage when it is thus directed towards an object which it can buy cheaper than it can make. The value of its annual produce is certainly more or less diminished, when it is thus turned away from producing commodities evidently of more value than the commodity which it is directed to produce. According to the supposition that commodity could be purchased from foreign countries cheaper than it can be made at home; it therefore could have been purchased with a part only of the commodities, or, what is the same thing, with a part only of the price of the commodities, which the industry employed by an equal capital would have produced at home, had it been left to follow its natural course. The industry of the country, therefore, is thus turned away from a more to a less advantageous employment; and the exchangeable value of its annual produce, instead of being increased according to the intention of the lawgiver, must necessarily be diminished by every such regulation.”

The argument advanced by protectionists that by means of duties on imported goods “a particular manufacture may sometimes be acquired sooner than it could have been otherwise, and after a certain time may be made at home as cheap, or cheaper, than in the foreign country” is met by Smith as follows (*ibid.*):

“But though the industry of the society may be thus carried with advantage into a particular channel sooner than it could have been otherwise, it will by no means follow that the sum-total either of its industry or of its revenue can ever be augmented by any such regulation. The industry of the society can augment only in proportion as its capital augments, and its capital can augment only in proportion to what can be gradually saved out of its revenue. But the immediate effect of every such regulation is to diminish its revenue; and what diminishes its revenue is certainly not

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very likely to augment its capital faster than it would have augmented of its own accord, had both capital and industry been left to find out their natural employments.

"Though, for want of such regulations, the society should never acquire the proposed manufacture, it would not upon that account necessarily be the poorer in any one period of its duration. In every period of its duration its whole capital and industry might still have been employed, though upon different objects, in the manner that was most advantageous at the time. In every period its revenue might have been the greatest which its capital could afford, and both capital and revenue might have been augmented with the greatest possible rapidity."

He concludes his argument on this point in the following words (Book IV, Ch. II, pp. 185-186):

"The natural advantages which one country has over another in producing particular commodities are sometimes so great that it is acknowledged by all the world to be in vain to struggle with them. By means of glasses, hot-beds, and hot-walls very good grapes can be raised in Scotland, and very good wine, too, can be made of them at about thirty times the expense for which at least equally good can be brought from foreign countries. Would it be a reasonable law to prohibit the importation of all foreign wines merely to encourage the making of claret and Burgundy in Scotland? But if there would be a manifest absurdity in turning towards any employment thirty times more of the capital and industry of the country than it would be necessary to purchase from foreign countries an equal quantity of the commodities wanted, there must be an absurdity, though not altogether so glaring yet exactly of the same kind, in turning towards any such employment a thirtieth, or even a three hundredth part more of either. Whether the advantages which one country has over another be natural or acquired, is in this respect of no consequence. As long as the one country has those advantages, and the other wants them, it will always be more advantageous for the latter rather to buy of the former than to make. It is an acquired advantage only, which one artificer has over his neighbor, who exercises another trade; and yet they both find it more advantageous to buy of one another than to make what does not belong to their particular trades."

Smith's examination of government interference in the form of bounties² and treaties of commerce³ also lends support to his negative argument. Like restraints on importation, these also are shown to

² Book IV, Ch. V.

³ Ch. VI.

divert capital into employments less productive than those into which it would go under a régime of freedom. He reaches the same conclusion regarding restrictions upon colonies. He shows that England lost rather than gained by the restrictions she imposed upon the trade and industry of her colonies.

3. *Permissible Exceptions to the Principle of Freedom of Trade.*

In the arguments in favor of industrial liberty and non-interference which have been outlined Smith had in view one goal only, namely the supply of a nation with the greatest possible amount of wealth. No one, however, was better aware than he that no nation could at all times aim at that goal; that sometimes other and higher interests require the sacrifice of the economic. He believed, for example, that a nation should produce these things that are necessary for its proper protection in time of war and therefore approved a tax on the importation of saltpeter into England and the protection of English shipping by the Navigation Acts, even though these measures were in violation of the economic interests of the nation. He also believed that, if goods produced at home were taxed, a corresponding tax should be levied on their importation, in order to prevent home producers from being placed at a disadvantage; and that retaliatory duties are sometimes justified.⁴

⁴ Ch. VIII.

CHAPTER VIII

THE PERIOD FROM 1776 TO 1815

A. ECONOMIC AND SOCIAL CONDITIONS

In contrast with the comparative peacefulness of the first three quarters of the eighteenth century, the generation that lived in the period between the publication of *The Wealth of Nations* and that of Ricardo's *Principles of Political Economy* was constantly harassed by war and its consequences. In 1776 came the revolt of the American Colonies, which was followed by the Revolutionary War, and in 1812-1814 by a second war with the new republic. In 1789 the French Revolution started. With this at first the English people sympathized, but this feeling was later followed by one of horror and antagonism on account of the atrocities committed by the revolutionists and the radical doctrines and measures they advocated. Then followed the Napoleonic wars, in which England played a leading rôle. During the same period the so-called industrial revolution was in progress.

This combination of events was accompanied and followed by great changes in economic, social, and political life. Among these of prime importance were a rapid growth in the volume of manufactures and an increase in their relative importance in the national economy; a spread of factories and a corresponding decay of the domestic system of industry; a migration of industry from the old towns and rural districts to new provincial centers; the rapid progress of the process of the substitution of large estates cultivated for profit by capitalist tenants and hired laborers for small farms cultivated by yeomen and their families primarily for the supply of food and clothing for themselves, who in their spare time spun and wove for the clothiers or their agents; a rapid growth and redistribution of the population and great changes in their ways and standards of living; a great increase in the public debt and in the burden of taxation; and the suspension of specie payments by the Bank of England. The period was also char-

acterized by frequent and great fluctuations in prices, especially of corn and other food products, caused primarily by the interruptions to commerce occasioned by the wars, and by agitation for changes in the constitution of Parliament and the local governments.

Some of the problems which accompanied these changes deserve attention because of their relation to the economic thought of the period. One of them was the supply of food for the rapidly increasing population. Great progress was made during the period in the improvement of agricultural methods and in bringing into cultivation pastures and waste lands. The high prices of agricultural produce facilitated these changes by making it profitable to invest capital in this way. In spite of large investments of this nature, however, the country was unable to supply itself with food. The importation of corn and other food products became more and more urgent and, before the close of the eighteenth century, an annual necessity. This condition raised a question regarding the desirability of the maintenance of the corn-laws, a constantly growing number of people urging their repeal. This problem was constantly before Parliament from the beginning of the nineteenth century until it was settled in 1846.

Another problem was caused by the wretchedness and misery of the laboring classes and the care of the poor. The substitution of the factory for the domestic system of manufacturing moved thousands of people from country villages to crowded industrial centers. It substituted for work in the open air and in cottages work in badly lighted, badly ventilated, and in other respects unsanitary buildings; it required long hours of monotonous toil in connection with machines instead of the varied tasks of farmers and their families, who sown and wove on rainy days in winter, and at odd hours; it greatly increased the labor of women and children; and it severed old associations and friendships of people who were ill fitted to form compensating new ones. Under these conditions, too, wages were frequently far from adequate to enable people to maintain their accustomed standards of living.

Many of the people who were left behind in the country also suffered from the changes taking place. Unable to compete with the factories and the capitalist farmers, the yeomen little by little sold their small holdings and either moved to the cities and sought employment in the factories or became agricultural laborers. In either case their lot was not improved.

This shifting of employment and movement from place to place,



together with the high price of food, pushed the weaker members of society over the line that marked division between self-support and pauperism and greatly increased the burden of poor-relief upon the parishes.

A third problem concerned the extension of old and the opening of new foreign markets for the increasing volume of manufactured goods, now each year becoming more and more in excess of the capacity for domestic consumption. The loss of the American Colonies aggravated this problem and demanded a change of tactics. England had now become dependent upon foreign markets not only for the disposal of her surplus manufactures but for the supplying of food, which she could no longer produce in sufficient quantities, and of a constantly increasing quantity of raw materials for her industries.

The suspension of specie payments by the Bank of England in 1797 was caused by a run on the country banks occasioned by the fear of a French invasion and the demands made upon the government for specie for shipment abroad for the subsidization of her allies against Napoleon. The effect of this procedure upon prices and the rates of foreign exchange was a subject of speculation for a generation, and the problem of resumption of specie payments was constantly before Parliament until it was accomplished in 1821.

The solution of these and other economic problems could not be found in the pages of *The Wealth of Nations*, helpful though that book had been to the business men and statesmen of the preceding generation. Adam Smith's contributions, as the name of his book suggests, had been chiefly to the theory and practice of production, as economists now define that term. The problems of the new era belonged chiefly to the field of distribution, a topic which Smith treated more or less as a side issue in connection with the explanation of prices. His observations on this subject are interesting and illuminating, but they were superseded by the theories of economists of the period under discussion.

In explanation of English economic thought of the later eighteenth and early nineteenth centuries, it is also necessary to take account of the influence of the tremendous social, political, and economic changes in France during this period, which undermined traditional ideas regarding government, society, and progress and gave a great stimulus to thought concerning these matters.

B. THE MALTHUSIAN DOCTRINE OF POPULATION

In England one of the products of this thought-stimulus from France was the *Political Justice* of William Godwin, published in 1793. The author of this book was a precursor of modern anarchism. He invented the famous maxim that "All government, even the best, is an evil," and he had sublime confidence in the capacity of the human race for progress. In this book he developed in particular the possibilities of the advancement of science and of the influence of reason upon the conduct of men. The former, he said, would so increase the productivity of human labor that all material wants could be satisfied, by a half-hour's work per capita per day; the latter would prevent too rapid an increase of population. Indeed, he believed that reason would dominate men to such a degree that reproduction would cease and man become immortal.

A companion volume appeared in France the following year, 1794, written by Condorcet, a prisoner awaiting the guillotine. It was entitled *Esquisse d'un tableau historique du progres de l'Esprit Humain* and expressed the same confidence as the *Political Justice* in the potency of science and reason in the future affairs of men. In 1797 Godwin supplemented his *Political Justice* by a new work entitled *The Inquirer*, in which many of his former thoughts were put in a new and stronger light.

The appearance of this latter book was the occasion of a fireside discussion between Daniel Malthus, an English country gentleman of moderate fortune and independent views, and his son, Thomas Robert, who had graduated at Cambridge as ninth wrangler in 1788, had studied there and at home in the succeeding years, and had just been appointed fellow at Jesus College. The elder Malthus had been a friend and executor of Rousseau and was a student of his writings and those of other Frenchmen of the Revolutionary epoch. He sympathized with and defended Godwin's views, and his son opposed them. The latter took this attitude "partly for the sake of argument; and, as often happens in such a case, Robert found his case stronger than he had thought. Hard pressed by an able opponent, he was led, on the spur of the moment, to use arguments which had not occurred to him before. . . . In calmer moments he followed them up to their conclusions." "The discussion," he tells us (Preface to the first edition of the *Essay*, 1798), "started the general question of the future improve-

ment of society, and the author at first sat down with an intention of merely stating his thoughts to his friend upon paper, in a clearer manner than he thought he could do in conversation." But the subject opened upon him, and he determined to publish. This is the plain story of the publication of the "*Essay on Population* reduced to its simplest terms!"¹

The position taken by the younger Malthus in his argument with his father and in his essay was that Godwin had overestimated the influence of reason upon the improvement of society. He expressed the conviction that, under the normal operation of a natural instinct, population tends to increase faster than the food supply, and that the misery and vice which necessarily result render impossible the realization of the visions of Godwin and Condorcet regarding the perfectibility of men and society.

He illustrated this alleged tendency of population to increase faster than the food supply by contrasting the results of a geometrical and an arithmetical progression, the former illustrating the natural rate of the increase of population and the latter that of the food supply. Suppose, for example, that population should double itself every twenty-five years, a rate of increase which had actually been realized in the United States, and that the food supply of each succeeding twenty-five-year period should increase by an amount equal to the total product at the beginning, a rate which seemed to Malthus to be the maximum that could be hoped for and more than was at all likely to be realized, the results at the end of two centuries would be represented by the following figures:

1	2	4	8	16	32	64	128	256
1	2	3	4	5	6	7	8	9

That is to say, if the relation between population and food supply at the beginning be as 1 to 1, at the end of 200 years it would be as 256 to 9. If the relation 1 to 1 represents an adequate food supply, that of 256 to 9 would represent an impossible condition, indeed that of 8 to 4, the condition at the end of seventy-five years, would represent a food supply of only one-half the amount needed.

The essence of this argument was expressed by Malthus in the latest

¹ James Bonar, *Malthus and His Work* (New York: Harper & Brothers, 1885), pp. 4 and 5.

edition of his *Essay*² in the following words³: "The rate according to which the productions of the earth may be supposed to increase, it will not be so easy to determine. Of this, however, we may be perfectly certain, that the ratio of their increase in a limited territory must be of a totally different nature from the increase of population. A thousand millions are just as easily doubled every twenty-five years by the power of population as a thousand. But the food to support the increase from the greater number will by no means be obtained with the same facility. Man is necessarily confined in room. When acre has been added to acre till all the fertile land is occupied, the yearly increase of food must depend upon the melioration of the land already in possession. This is a fund which from the nature of all soils, instead of increasing, must be gradually decreasing. But population, could it be supplied with food, will go on with unexhausted vigour; and the increase of one period would furnish the power of a greater increase the next, and this without any limit."

According to this argument, the available food supply acts as a barrier against which population is constantly pressing. This pressure Malthus described under the head of "Checks to Population," which, viewed objectively, he classified as positive and preventive, the former including "every cause, whether arising from vice or misery, which in any degree contributes to shorten the natural duration of human life," and the latter every cause which diminishes the birth-rate. Viewed subjectively, he classified these checks in the first essay as "misery" and "vice," the latter ultimately resulting in the former, but being distinguishable from it in the first stages of its history by the fact that its immediate effects may be happiness.

The publication of this essay in 1798 was followed by widespread discussion and criticism, which stimulated the author to make further researches. In the prosecution of these researches he made an extended trip on the Continent. The outcome was a book on the subject, published in 1803 with the title *An Essay on the Principle of Population, or A View of Its Past and Present Effects on Human Happiness with an Inquiry into Our Prospects Respecting the Future Removal or Mitigation of the Evils Which It Occasions*.

In this book he added to the two subjective checks to population de-

² Quotations are from the edition published in 1890 by Ward, Lock and Co., with a biography and introduction by G. T. Bettany.

³ Pp. 4 and 5.

scribed in the first essay, namely, misery and vice, a third which he called "moral restraint." This he described as a preventive check which does not result in misery, though "considered as a restraint on a strong natural inclination, it must be allowed to produce a certain degree of temporary unhappiness, but evidently slight, compared with the evils which result from any of the other checks to population; and merely of the same nature as many other sacrifices of temporary to permanent gratification, which it is the business of a moral agent continually to make."⁴

The recognition of moral restraint as a check to population diminished in some degree the effectiveness of the first essay as an argument against the perfectionists, but his account in the second essay of the manner in which these checks have operated in the past and are at present operating among all classes and kinds of people, savage as well as civilized, put the burden of proof upon them and upon all those who were advocating measures which would result in the increase of population. The presumption was now in favor of restrictive measures, whereas previously the prevailing idea was that an increase of population was a good thing and should be encouraged.

The second essay was a scientific treatise and not, like the first, a polemical tract. Its chief contemporary influence was not directed so much against the perfectionists as against the poor-relief measures which were being advocated.

C. THE THEORY OF RENT

In a pamphlet published in 1777 by James Anderson, a Scotch farmer, entitled *Inquiry into the Nature of the Corn Laws with a View to the New Corn Bill for Scotland*, an explanation of the rent of land is given which may be described as the differential principle. This is that the rent of a given area of land is determined by the difference between the value or price of its produce and that of the same area of poorer land on which the value or price of the produce is just sufficient to cover the cost of production. The argument is that a given area of land of superior fertility, say an acre, will yield more units of produce than the same area of land of an inferior quality, in exact proportion to its superiority, and consequently a greater monetary return to its cultivator in the same proportion; that the cost of production on the superior land will be no greater, and probably less, than

⁴ *Essay on Population*, p. 8.

on the inferior; that the surplus over the cost of production on the superior land can be collected as rent by the proprietor because the payment of that amount will just equalize for the cultivator conditions on the two pieces of land; and that the supply of the needs of the population for food and other agricultural produce will force the cultivation of lands of degrees of fertility ranging from the highest down to that on which the returns will just equal the cost of production, and no lower because cultivators could not afford or long continue to cultivate lands at a loss. Marginal land will yield no more than the cost of production, because the value of agricultural produce is determined by the cost of production on such lands.

In the above-mentioned work and in a pamphlet published the same year entitled *Observations on the Means of Exciting a Spirit of National Industry* Anderson states the differential principle and develops with great clarity all the phases of this argument except the one pertaining to the causal relation between value and cost of production on the margin; but he did not state and apparently did not believe the doctrine of diminishing returns in agriculture that later came to be associated with it. This latter doctrine appeared in connection with the debates in Parliament on the corn-laws that took place during the Napoleonic wars.

During these wars the price of corn increased to unprecedentedly high levels, and fluctuated greatly. To the agricultural interests they thus served as the equivalent of a high protective tariff. When the peace of Amiens was arranged and with it appeared the prospect of a cessation of the war and of the discontinuance of this artificial protection, the representatives of the agricultural interests in Parliament urged a change in the corn-law of 1791 then in force. This law imposed upon foreign wheat a duty of 24s. 3d. per quarter whenever the English price was below 50s. per quarter, one of 2s. 6d. when the English price was between 50s. and 54s. per quarter, and one of 6d. when the price in England was over 54s. per quarter. They recommended an amendment to the law which would authorize the highest duty, 24s. 3d. per quarter, whenever the English price was below 53s. In spite of considerable opposition their recommendation was incorporated in the corn-law of 1804.

The renewal of the war between England and Napoleon restored the artificial barrier of protection and postponed further agitation regarding the corn-laws until the capture of Napoleon in 1813, when the agriculturalists were again alarmed and asked that the law of 1804

be so amended as to permit the maximum duty to be levied whenever the price in England should be 80s. or below. This request was vigorously opposed by the representatives of the capitalist class and by nearly all members of Parliament who were not directly interested in agriculture or closely allied to those who were, and it inaugurated a contest which was destined to continue for more than a generation.

In the early stages of this controversy were raised questions concerning the effects of corn duties and farm rents on the price of corn. Some of the advocates of the increase in the corn duties argued that their ultimate effect would be to lower the price. They reasoned that temporary high prices occasioned by the proposed duties would attract capital into agriculture, improve agricultural methods, and increase the product. Competition between sellers would then force down the price. They were able to support their arguments by reference to the undoubted effects of the high prices of preceding years in extending the area and improving the method of cultivation.

Against this view was urged the conviction that a considerable increase in the product of English agriculture either through the extension of the area or greater intensity of cultivation would result in a permanently higher price to the consumer on account of higher costs of production necessitated by the resort to poorer soils or by the forcing of greater yields from lands already under cultivation. This view was presented by Malthus in a pamphlet published in 1814 entitled *Observations on the Effects of the Corn Laws and of a Rise or Fall in the Price of Corn on the Agricultural and General Wealth of the Country*, and in the following year was stated in the form of a law by Edward West in his *Essay on the Application of Capital to Land; with Observations Showing the Impolicy of Any Great Restriction of the Importation of Corn, and That the Bounty of 1688 Did Not Lower the Price of It*.⁵ West stated the law in the following words:

"Each equal additional quantity of work bestowed on agriculture yields an actually diminished return, and, of course, if each equal additional quantity of work yields an actually diminished return, the whole of the work bestowed on agriculture in the progress of improvement yields an actually diminished proportionate return."⁶ . . . The additional work bestowed upon land must be expended either in bringing fresh land into cultivation, or in cultivating more highly that already in tillage. In every country the grada-

⁵ This essay was reprinted in *A Reprint of Economic Tracts*, edited by Jacob H. Hollander of Johns Hopkins University. All references are to this reprint.

⁶ *Ibid.*, p. 12.

tions between the richest land and the poorest must be innumerable. The richest land, or that most conveniently situated for a market, or, in a word, that which, on account of its situation and quality combined, produces the largest return to the expense bestowed on it will of course be cultivated first; when in the progress of improvement new land is brought into cultivation, recourse is necessarily had to poor land, or to that, at least, which is second in quality to what is already cultivated. It is clear that the additional work bestowed in this case will bring a less return than the work bestowed before. And the very fact that in the progress of society new land is brought into cultivation, proves that additional work cannot be bestowed with the same advantage as before on the old land. For 100 acres of the rich land will, of course, yield a larger return to the work of ten men than 100 acres of inferior land will do, and if this same rich land would continue to yield the same proportionate return to the work of 20 and 30 and 100 as it did to that of 10 laborers, the inferior land would never be cultivated at all." ⁷

The doctrine of diminishing returns is thus made by West a law of universal application. He suggests that it is not only applicable to all cultivated lands, in the sense that in a given condition of the agricultural arts the application of additional quantities of capital to land would result in a proportionately diminished return, but that the law is also true historically, and that in spite of improvements that may be made in agriculture the law of diminishing returns holds true.

The application of the doctrine of diminishing returns to the explanation of rent was made by Malthus and Ricardo. At the very time that West was preparing the pamphlet from which the above quotations were made, Malthus was writing two others, entitled respectively *The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn; Intended as an Appendix to the Observations on the Corn Laws* and *An Inquiry into the Nature and Progress of Rent and the Principles by Which It Is Regulated*. In the first-mentioned pamphlet he declared his adherence to the protectionist side of the corn-law controversy but gave as his reason for taking this position the necessity in his opinion that England should be independent of foreign nations in the production of her food supply. He did not, however, conceal the fact that such independence must be purchased with a price and that England could not supply herself with food without forcing cultivation down to the poorer lands and thus raising the price of corn to a point above the price current in the other countries of Europe. He tells us in the preface that he wrote the

⁷ *Ibid.*, p. 14.

pamphlet on *Nature and Progress of Rent* for the purpose of combating an idea very prevalent at the time to the effect that high rents were injurious to the country. The impression to which Malthus refers was expressed by the free-traders in Parliament in the form of an argument to the effect that prices were high because rents were high. These persons suggested that if, as the advocates of protection claimed, the lowering of the price of corn would make it unprofitable for a tenant to continue to cultivate the lands of poorest quality, their difficulty could be easily removed by relieving them of the necessity of paying so high rents. If, for example, as was claimed, the cost of production on the poorest lands was 80s. per quarter, that cost without doubt included a certain amount of rent, say 20s. Now, if the price of corn should fall to 70s., clearly the cultivator could not afford to pay the necessary expenses of cultivation—in this case 60s.—and 20s. as rent, but he could pay 60s. as cultivating expenses and 10s. as rent. They therefore suggested that the rents in such a case be lowered. It was against this sort of an argument that Malthus wished to prevail in the pamphlet in question. He wished to show that the rent which the landlord paid was a necessary result of the price of corn, and that it could not be lowered by an arbitrary process such as the free-traders suggested. In other words, he attempted to prove that the rent of land is a necessary result of the cultivation of land of different degrees of fertility. In the course of his pamphlet, however, he goes at length into an exposition of the doctrine of rent under various aspects, and tries to show that inasmuch as rents are the difference between the product on the poorest and the best lands, high rents are only possible in a country in which there are very good as well as very poor lands, and consequently that the existence of high rents in any country is evidence that that country is rich, that its agricultural products are abundant, that its lands are very fertile; and low rents, he claims, would necessarily indicate the opposite state of things; hence the conclusion that high rents indicate national prosperity and low rents national decline.

D. THE DOCTRINE THAT CAPITAL IS PRODUCTIVE

Adam Smith emphasized the productivity of labor and assigned to capital the function of setting labor in motion. In contrast to this view is the doctrine that there are three coördinate, coöperating factors in production, viz., nature, labor, and capital, and that each of these deserves to be called productive.

This doctrine was expounded by Jean-Baptiste Say, a noted French economist, in his *Traité d'économie politique* first published in 1803 "We have seen," he says, "how industry, labor, capital and natural agents, concur in production, each in its respective department, and we have likewise seen that these three sources are indispensable to the creation of products."⁸

"By the term *labour*," he adds,⁹ "I shall designate that continuous action, exerted to perform any one of the operations of industry, or a part only of one of these operations," and it "is productive, because it concurs in the creation of a product"

"Man obliges natural agents, and even the products of his own previous industry, to work in concert with him in the business of production. There will, therefore, be no difficulty in comprehending the terms *labour* or *productive service* of nature, and *labour* or *productive service* of capital"¹⁰

In subsequent portions of his book he uses the term *productive service* or *services* as descriptive of the work performed in production by each of these factors and considers it equally applicable to each

The idea that capital is productive was also defended by Lord Lauderdale in a book published in Edinburgh in 1804 entitled *An Inquiry into the Nature and Origin of Public Wealth and the Causes of Its Increase*¹¹ Capital, he says, produces a profit either by "supplanting a portion of labour which would otherwise be performed by the hand of man" or by performing a portion of labour, which is beyond the reach of the personal exertion of man to accomplish" (pp 155 and 156) He then proceeds to demonstrate that in every form in which it may be applied—and he enumerates five (pp 153 and 154)—this supplanting of labor or performing labor which is beyond the reach of human hands takes place In the case of capital employed in the "building and obtaining of machinery," he illustrates the process as follows (pp 156 and 157) "The moment the cultivator places a portion of capital in the acquisition of a spade, one man must obviously, in the course of a day, be able, with his spade, to prepare as much land for receiving seed, as fifty could, by the use of their nails Thus, this portion of capital supplants the necessity of the labour of

⁸ C B Princess's translation of the fourth edition published in Philadelphia in 1844 under the title *A Treatise on Political Economy or the Production Distribution, and Consumption of Wealth* by Jean Baptiste Say p 77

⁹ *Ibid* p 85

¹⁰ *Ibid* pp 85 and 86

¹¹ Quotations are from the second edition published in 1819

forty-nine men. In the progress of things a portion of the national capital comes to be invested in a plough; and one man, with his plough, will prepare as much land for the reception of seed as perhaps six could with spades. Thus that portion of capital invested in the plough, supplants the necessity either of the labour of five diggers, or of two hundred and ninety-nine men reduced by absolute want of capital to use their nails."

He also shows how labor is saved by capital employed in domestic and foreign trade, agriculture, and "merely for the purpose of circulation" (see pp. 179-193). According to him, capital *works* and produces what labor might otherwise have produced, if it had not been supplanted, or what labor cannot produce. He contrasts this with Smith's doctrine that capital merely "adds to the productive powers of labour" and notes some of the errors into which he thought Smith was led by his doctrine (see pp. 194-197).

The doctrine that capital, as well as nature and labor, *produces* was used by both Say and Lauderdale in their explanation of interest. The former spoke of the productive services of nature, labor, and capital as the sources of the income of landlords, laborers, and capitalists respectively. Since these services bring valuable commodities into existence, they are themselves valuable and their sale on the market brings an income to their owners. "The causes, which determine the value of things," according to Say,¹² "apply without exception to all things possessed of value, however perishable; amongst others, therefore, to the productive service yielded by industry, capital, and land, in a state of productive activity. Those, who have had at their disposal any one of these three sources of production, are venders of what we shall here denominate productive agency; and the consumers of its product are the purchasers. Its relative value, like that of every other commodity, rises in direct ratio to the demand, and inverse ratio to the supply."

According to Lauderdale the owner of capital can command wages for the work his capital performs for the same reason that human beings can command pay for their services. On account of the competition of other capital employed in the same manner, the amount he can command may not be equal to the wages of the labor supplanted, but it cannot exceed them. "Supposing, for example," he says,¹³ "one man with a loom should be capable of making three pairs of stockings a

¹² *Op. cit.*, pp. 314 and 315.

¹³ *Op. cit.*, p. 158.

day, and that it should require six knitters to perform the same work with equal elegance, in the same time; it is obvious, that the proprietor of the loom might demand, for making his three pair of stockings, the wages of five knitters."

"The small profit which the proprietors of machinery generally acquire, when compared with the wages of labour which the machine supplants may," he adds,¹⁴ "create a suspicion of the rectitude of this opinion," but he attempts to dispel this suspicion by the statement¹⁵ that "the actual profit drawn for the use of any machine, when universally adopted, must be regulated on the same principle with the hire of a field, or the payment of an artist, or the price of any other commodity; that is, by the proportion betwixt the quantity of machines that can be easily procured, and the demand for them. But that the profit of stock employed in the machinery is paid out of a fund that would otherwise be destined to pay the wages of the labour it supplants, is evident; because, if the proprietors of all the capital so employed, would combine to charge a greater sum for the use of the machines than the wages of the labour supplanted, they would be instantly set aside, and the same portion of the revenue of the nation again employed in the payment of wages, that was so directed before the machines were invented."

E. BANK-NOTE ISSUES AND PRICE FLUCTUATIONS

The suspension of specie payments by the Bank of England was followed by a rise of prices and of the rates of foreign exchange, and the connection between these phenomena and the remedy for the evils resulting from them became the subject of much speculation inside and outside of Parliament. Two theories regarding the relation between bank credit and prices were the result. One was that the suspension of specie payments caused the notes of the Bank of England to depreciate, to become a secondary standard of value and thus to raise prices and the rates of foreign exchange. The remedy for the evils in question suggested by the advocates of this theory was the resumption of specie payments, which they claimed would bring the value of the notes to a parity with gold and thus remove the cause of the trouble.

The other theory was that bank-notes affect prices through their volume only and, so long as this is not excessive (i.e., not great enough to increase the proportion between the total amount of money

¹⁴ *Ibid.*, p. 159.

¹⁵ *Ibid.*, pp. 160, 161.

in circulation and the quantity of commodities to be exchanged by means of it) it cannot cause a rise of prices. These theorists did not believe that such a change in the relation between the quantity of money in circulation and of goods to be exchanged had taken place and consequently that the suspension of specie payments had caused a rise in prices. They explained the rise in the foreign exchanges by asserting that gold had appreciated. Holding these views, they did not believe that the resumption of specie payments would remedy the evils in question, and they therefore opposed it.

In the course of this controversy, Parliament appointed committees to inquire into the state of the currencies of Ireland and England. The report in 1810 of the latter, called the Bullion Committee, became a classic document in the history of the theory of bank credit.¹⁶

¹⁶ For a detailed account of this controversy see Macleod's *The Theory and Practice of Banking*, II, Ch. IX.

CHAPTER IX

DAVID RICARDO AND HIS THEORY OF DISTRIBUTION

The literature produced by the controversy over the corn-laws, especially the pamphlets of Malthus, were read by David Ricardo, a gentleman of independent means, who during the so-called "bullion controversy" had acquired an excellent reputation as a sound thinker and economist. These writings inspired him to prepare in 1815 a pamphlet entitled *Essay on the Influence of a Low Price of Corn on the Profits of Stock*. In this publication there was suggested an explanation of the distribution of wealth which, as subsequently developed, was accepted as the classical theory on that subject. Its importance in the development of the science of economics, as well as the influence of some of its author's other doctrines, justify at this point a brief account of Ricardo's personal history and character.

A. RICARDO'S LIFE AND WRITINGS ¹

He was born in London in 1778, his father being a Dutch Jew who had established himself in business in the English capital. After an elementary education in the schools of London and two years' instruction in a trade-school in Holland, he was employed confidentially by his father in the business of the Stock Exchange. Later, having renounced the Jewish faith and severed business connections with his father, he operated independently on the Exchange with such success that at a comparatively early age he had acquired a fortune of sufficient magnitude to render him financially independent. Writing of this phase of his career, McCulloch quotes the following passage from an account of his life in the Annual Obituary for 1823, supposed to have been written by one of his brothers: "The talent for obtaining wealth is not held in much estimation; but perhaps in nothing did Mr. R. more evince his extraordinary powers, than he did in his business. His complete knowledge of its intricacies; his surprising quick-

¹ The facts regarding Ricardo's life and character herewith presented are taken from the account given by J. R. McCulloch in the introduction to his edition of Ricardo's works published in London in 1888.

ness at figures and calculation; his capability of getting through without any apparent exertion the immense transactions in which he was concerned; his coolness and judgment combined certainly with (for him) a fortunate tissue of public events, enabled him to leave all his contemporaries at the Stock Exchange far behind, and to raise himself infinitely higher, not only in fortune, but in general character and estimation, than any man had ever done before in that house. Such was the impression which these qualities had made on his competitors, that several of the most discerning among them, long before he had emerged into public notoriety, prognosticated in their admiration, that he would live to fill some of the highest stations in the state."

Exaggerated and partial as this statement may be, it assists in the explanation of the characteristics of his mind and of the reputation he acquired when he gave his attention to the subject of economics. McCulloch says² that Ricardo first read *The Wealth of Nations* in 1799 and suggests the probability that his interest in the subject was greatly stimulated and perhaps first aroused by this perusal. However this may be, he thought much on economic matters during his active career as a business man and after his withdrawal from business devoted the greater part of his time to their scientific aspects.

In 1809 he first made public some of the results of his thinking. At that time the rise in the market price of bullion and the fall of the exchanges were stimulating discussion, and Ricardo made an investigation of the subject which resulted in conclusions which he was induced to give to the public in the form, first of a series of letters in the *Morning Chronicle* and later in a pamphlet entitled *The High Price of Bullion a Proof of the Depreciation of Bank Notes*. According to McCulloch,³ "this tract led the way in the far-famed bullion controversy." The Bullion Committee, afterward appointed by Parliament to consider this subject, accepted Ricardo's reasoning and presented it in a "more comprehensive and popular manner" in their report. Ricardo's reputation in this field was further enhanced by a reply he wrote in 1811 to a searching criticism of the Bullion Committee's report published by a Mr. Bosanquet, entitled *Reply to Mr. Bosanquet's Practical Observations on the Report of the Bullion Committee*.

The *Essay on the Influence of a Low Price of Corn on the Profits of Stock*, called forth by the controversy over the corn-laws and mentioned at the beginning of this chapter, was his next publication. It

² J. R. McCulloch, *The Works of David Ricardo* (London, 1888), p. xvii.

³ *Ibid.*, p. xviii

was followed in 1816 by his *Proposals for an Economical and Secure Currency, with Observations on the Profits of the Bank of England* and in 1817 by the *Principles of Political Economy and Taxation*. In 1820 he contributed to the *Encyclopædia Britannica* an article on "The Funding System" and in 1822 wrote a tract entitled *Protection to Agriculture*, pronounced by McCulloch⁴ to be "the best of all his pamphlets," a "chef-d'œuvre." He died in 1823, leaving a manuscript which was subsequently published under the title *Plans for the Establishment of a National Bank*, and notes on Malthus's *Principles of Political Economy* in which he answered objections Malthus had made to his doctrines. During the last years of his life (according to McCulloch, from about 1809) he was on terms of intimacy with Malthus and James Mill, conducting a correspondence with the former which has been published under the editorship of Professor Hollander of Johns Hopkins University.

In 1819 Ricardo became a member of the House of Commons, where he seems to have been regarded as an authority on economic subjects, especially those of a financial character. "Though not properly belonging to the Whig party," says McCulloch,⁵ "he voted almost uniformly with the Opposition," and "was so far a friend to the system of the radical reformers, as to give his cordial support to the plan of voting by ballot" but not to "their plan of universal suffrage."

Notwithstanding the fact that Ricardo's business and public activities forced him constantly to deal with, and to make decisions concerning, concrete economic problems, his natural bent was toward abstract reasoning. His chief interest lay in the discovery and discussion of principles, and he was accustomed to reach these by analysis and reasoning rather than by induction. As a clear-headed, profound, and comprehensive thinker he ranked high among the men of his generation. McCulloch says of him⁶ "that in point of deep, clear, and comprehensive intellect, he had no superiors, and very few, if any, equals, either in Parliament or in the country."

B. RICARDO'S CONCEPTION OF THE PROBLEM OF DISTRIBUTION AND THE DOCTRINES EMPLOYED IN ITS SOLUTION

In the preface to his *Principles of Political Economy and Taxation* Ricardo says: "The produce of the earth—all that is derived from its

⁴ *Ibid.*, p. xxviii.

⁵ *Ibid.*, p. xxxi.

⁶ *Ibid.*, p. xxx.

surface by the united application of labour, machinery, and capital, is divided among three classes of the community, namely the proprietor of the land, the owner of the stock or capital necessary for its cultivation, and the labourers by whose industry it is cultivated." ⁷ He names these shares respectively rent, profit, and wages and declares the determination of the laws which regulate the proportions between them in the different stages of society to be "the principal problem in Political Economy" and the purpose of his book. He credits Malthus and West with having presented "the true doctrine of rent" but declares that "much as the science has been improved by the writings of Turgot, Stuart, Smith, Say, and Sismondi, they afford very little satisfactory information respecting the natural course of rent, profit, and wages." ⁸

In his explanation of the distribution of wealth as thus defined Ricardo accepts the differential theory of rent, the doctrine of diminishing returns in agriculture, and the Malthusian doctrine of population explained in the preceding chapter and combines with them a doctrine of value which he expounds in his first and fourth chapters and which first demands our attention.

C. RICARDO'S DOCTRINE OF VALUE

Essential to an understanding of Ricardo's doctrine of value is the distinction he drew between what he termed "natural" and "market" values. By the latter term he meant the actual price at which commodities change hands from day to day. By *natural value*, on the other hand, he meant some point—rather difficult to describe—about which market values fluctuate and which they tend to approach. Unfortunately he did not define accurately and carefully this latter conception. We are obliged to gather it from the context, to infer it from his treatment of the various aspects of the subject.

He begins his treatment of the subject of natural value by distinguishing between "value in use" and "value in exchange" and by stating that "utility . . . is not the measure of exchangeable value, although absolutely essential to it," and that "possessing utility, commodities derive their exchangeable value from two sources; from their scarcity and from the quantity of labour required to obtain them." ⁹ He hastens to add that some commodities such as "rare

⁷ McCulloch, ed., *op. cit.*, p. 5.

⁸ *Ibid.*, p. 5

⁹ *Ibid.*, p. 7

statues and pictures, scarce books and coins, wines of a peculiar quality, which can be made only from grapes grown on a particular soil, of which there is a very limited quantity" derive their exchangeable value from their scarcity alone and limits as follows the groups into the exchangeable value of which "the quantity of labour required to obtain them" as well as scarcity enter as a determining factor: "In speaking, then, of commodities, of their exchangeable value, and of the laws which regulate their relative prices, we mean always such commodities only as can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint."¹⁰

In support of the doctrine that goods of this latter class exchange for each other in proportion to the amounts of labor required to obtain them, he quotes with approval from the fifth chapter of the first book of *The Wealth of Nations* the following passages:

"The real price of everything, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it. What everything is really worth to the man who has acquired it, and who wants to dispose of it, or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people."

"Labour was the first price—the original purchase-money that was paid for all things."

"In that early and rude state of society, which precedes both the accumulation of stock and the appropriation of land, the proportion between the quantities of labour necessary for acquiring different objects seems to be the only circumstance which can afford any rule for exchanging them for one another. If, among a nation of hunters, for example, it usually costs twice the labour to kill a beaver which it does to kill a deer, one beaver should naturally exchange for, or be worth two deer. It is natural that what is usually the produce of two days' or two hours' labour should be worth double of what is usually the produce of one day's or one hour's labour."

In applying this principle Ricardo is not unmindful of "the difficulty of comparing an hour's or a day's labour, in one employment with the same duration of labour in another." His method of overcoming this difficulty is indicated by the following quotation¹¹:

"The estimation in which different qualities of labour are held, comes soon to be adjusted in the market with sufficient precision for all practical

¹⁰ *Ibid.*, p. 8.

¹¹ *Ibid.*, p. 15.

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purposes. . . . The scale, when once formed, is liable to little variation. If a day's labour of a working jeweler be more valuable than a day's labour of a common labourer, it has long ago been adjusted, and placed in its proper position in the scale of value."

"In comparing, therefore, the value of the same commodity, at different periods of time, the consideration of the comparative skill and intensity of labour, required for that particular commodity, needs scarcely to be attended to, as it operates equally at both periods."

"If a piece of cloth be now of the value of two pieces of linen, and, if, in ten years hence the ordinary value of a piece of cloth should be four pieces of linen, we may safely conclude, that either more labour is required to make the cloth, or less to make the linen, or that both causes have operated."

"As the inquiry to which I wish to draw the reader's attention, relates to the effect of the variations in the relative value of commodities, and not in their absolute value, it will be of little importance to examine into the comparative degree of estimation in which the different kinds of labour are held. We may fairly conclude, that whatever inequality there might originally have been in them, . . . the variation is very inconsiderable from year to year, and, therefore, can have little effect, for short periods, on the relative value of commodities."

From the point of view of completeness and adequacy of statement and proof these quotations, and for that matter all that Ricardo wrote on this subject, leave much to be desired, but the essence of his doctrine obviously is that freely reproducible commodities exchange for each other in proportion to the amounts of labor required in their production and that in determining those amounts one day of a particular kind of skilled labor counts for as many days of unskilled or common labor as the market value or wages of a day of common labor is contained in the market value or wages of a day of the kind of skilled labor under consideration.

Another difficulty in applying this labor theory consists in the fact that capital coöperates with labor in the work of production and must be counted among the costs of production. Ricardo recognized this, and in the following statements he indicates his method of overcoming it:¹²

"Even in that early state to which Adam Smith refers, some capital, though possibly made and accumulated by the hunter himself, would be necessary to enable him to kill his game. Without some weapon, neither

¹² McCulloch, ed., *op. cit.*, pp. 16 and 17.

the beaver nor the deer could be destroyed, and therefore the value of these animals would be regulated, not solely by the time and labour necessary to their destruction but also by the time and labour necessary for providing the hunter's capital, the weapon, by the aid of which their destruction was effected.

"If we suppose the occupations of the society extended, that some provide canoes and tackle necessary for fishing, others the seed and rude machinery first used in agriculture, still the same principle would hold true, that the exchangeable value of the commodities produced would be in proportion to the labour bestowed on their production; not on their immediate production only, but on all those implements or machines required to give effect to the particular labour to which they were applied.

"If we look to a state of society in which greater improvements have been made, and in which arts and commerce flourish, we shall still find that commodities vary in value conformably with this principle."

One circumstance, however, connected with the use of machines and other forms of "fixed and durable capital" presents an obstacle to the application of the labor principle which Ricardo was not so successful in surmounting. It was the fact that besides the replacement of the capital used up in the process of production and which, in determining its influence upon value, Ricardo regarded as the equivalent of the amount of labor required in its production, interest must be paid during the period of its use. This fact would occasion no difficulty provided the amounts of these interest payments were always proportionate to the amounts of labor directly and indirectly consumed, but he saw that they were not always so proportionate. The following from Section IV of his chapter on value relates to this point:

"If men employed no machinery in production but labour only, and were the same length of time before they brought their commodities to market, the exchangeable value of their goods would be precisely in proportion to the quantity of labour employed."

"If they employed fixed capital of the same value and of the same durability, then, too, the value of the commodities produced would be the same, and they would vary with the greater or less quantity of labour employed in their production."

"But although commodities produced under similar circumstances would not vary with respect to each other, from any cause but an addition or diminution of labour necessary to produce one or other of them, yet, compared with others not produced with the same proportionate quantity of fixed capital, they would vary from the other cause also which I have be-

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fore mentioned, namely, a rise in the value of labour, although neither more nor less labour were employed in the production of either of them."

The reason why the value of labor in these cases affects the ratio in which the goods exchange for each other is the fact that the interest or profit on capital, according to Ricardo, varies inversely with the value of the labor associated with capital in the work of production.¹³ Let us assume that, regardless of the amounts of labor directly and indirectly employed in the production of two commodities, the interest on the capital employed in the production of one is greater, relative to the total amount of labor employed, than it is in the case of the other. (The reason for this may be that the capital in the former case bears a greater proportion to the labor than in the latter, or it may be that the capital is longer in being used up in the one case than in the other.) The first commodity will have to exchange for the second in a ratio greater than that indicated by the amounts of labor employed in the production of the two commodities respectively, in order to ensure to the owners of the capital the payment of the interest due them.¹⁴

Although Ricardo clearly recognized this modification of his labor principle, he considered it of relatively slight importance, on the ground that it causes comparatively slight variations in the ratios of exchange of commodities. "In estimating, then, the causes of the variations in the value of commodities," he says,¹⁵ "although it would be wrong wholly to omit the consideration of the effect produced by a rise or a fall of labour, it would be equally incorrect to attach much importance to it; and consequently, in the subsequent part of this work, though I shall occasionally refer to this cause of variation, I shall consider all the great variations which take place in the relative value of commodities to be produced by the greater or less quantity of labour which may be required from time to time to produce them."

The deviation of the market prices of commodities from "their primary and natural price" Ricardo also described as "accidental and temporary."¹⁶ The demand and supply of a commodity at the moment may be such as to establish a price for it above or below the point indicated by the labor principle, but in that case the profits of the capital employed in its production will be above or below the average in other industries, and this fact will increase in the one case and de-

¹³ See Ricardo's explanation of profits, described later in this chapter.

¹⁴ See Ricardo's illustration in Sections IV and V of his chapter on Capital.

¹⁵ McCulloch, ed., *op. cit.*, p. 24.

¹⁶ *Ibid.*, p. 47.

crease in the other the amount of capital employed in this industry, thus causing changes in the supply which will tend to bring the market into accord with the natural price. He concludes his discussion with these words:¹⁷ "In speaking, then, of the exchangeable value of commodities, or the power of purchasing possessed by any one commodity, I mean always that power which it would possess, if not disturbed by any temporary or accidental cause, and which is its natural price."

D. RICARDO'S DOCTRINE OF RENT

In the explanation of the rent of land Ricardo employs the differential principle and the doctrine of diminishing returns in agriculture in substantially the same manner as did Malthus and West. There are some peculiarities in his treatment of the subject, however, which deserve attention.

The first is indicated in the statement that "rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil."¹⁸ He thus excludes from this category any payment received by the landlord for capital invested in or on his lands in the form of buildings, drains, hedges, fences, walls, fertilizers, and other improvements, as well as gains resulting from the removal of timber, the digging of coal or other minerals, or the quarrying of stone. Those payments he classified as profits, and said that "this is a distinction of great importance . . . for it is found, that the laws which regulate the progress of rent are widely different from those which regulate the progress of profits, and seldom operate in the same direction."¹⁹

The explanation of rent in this restricted sense he finds in the fact that land is limited in quantity and not uniform in quality. "On the common principles of supply and demand," he says,²⁰ "no rent could be paid for such land [fertile land in quantities greatly beyond the needs of the population] for the reason stated why nothing is given for the use of air and water, or for any other of the gifts of nature which exist in boundless quantity." And further²¹: "If all land had the same properties, if it were unlimited in quantity, and uniform in quality, no charge could be made for its use, unless where it possessed

¹⁷ *Ibid.*, p. 49

¹⁸ *Ibid.*, p. 34.

¹⁹ *Ibid.*, p. 35.

²⁰ *Ibid.*

²¹ *Ibid.*, pp 35 and 36.

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peculiar advantages of situation. It is only, then, because land is not unlimited in quantity and uniform in quality, and because, in the progress of population, land of an inferior quality, or less advantageously situated, is called into cultivation, that rent is ever paid for the use of it. When in the progress of society, land of the second degree of fertility is taken into cultivation, rent immediately commences on that of the first quality, and the amount of that rent will depend on the difference in the quality of these two portions of land."

Even before land of inferior fertility is taken into cultivation, superior lands may bear rent, according to Ricardo, provided the point of diminishing returns in their cultivation has been reached. "It often, and, indeed, commonly happens," he says,²² "that before No. 2, 3, 4 or 5, of the inferior lands are cultivated, capital can be employed more productively on those lands which are already in cultivation." By way of illustration he assumes that equal amounts of capital and labor will produce on land of qualities numbered 1, 2, and 3, 100, 90 and 80 quarters of corn respectively and then adds: "It may perhaps be found, that by doubling the original capital employed on No. 1, though the produce will not be doubled, will not be increased by 100 quarters, it may be increased by eighty-five quarters, and that this quantity exceeds what could be obtained by employing the same capital on land No. 3."

"In such a case, capital will be preferably employed on the old land, and will create a rent; for rent is always the difference between the produce obtained by the employment of two equal quantities of capital and labour."²³ The reason for the creation of rent in this case is that the only available opportunities for the employment of additional labor and capital under the conditions assumed are either on land No. 3 or at a diminished return on land No. 1; and, since two rates of profits on the same market are impossible under competitive conditions, capital and labor must be content with the diminished returns represented by their lower productivity when added to the amounts already employed in the cultivation of No. 1, and the landlord can command the difference between their present and their former productivity.

Several corollaries or collateral propositions accompany this doctrine. One is that "*the capital last employed pays no rent*," which means that the landlord can exact no share of the product of the last increments of labor and capital employed or that the total product of

²² McCulloch, ed., *op cit.*, pp. 36 and 37.

²³ *Ibid*

these last increments are divided between the laborers who supply the labor and the capitalists who supply the capital. Ricardo does not expound the process of reasoning by which this conclusion is reached, but it seems to be about as follows: After the conditions of a lease have been fixed, including the amount of rent to be paid, the tenant is free to apply to the cultivation of the leased land or to any unappropriated lands as much labor and capital as he can command, and the net returns of any new, additional applications after the lease is made are beyond the reach of the landlord. He does not seem to consider what would happen when all lands have been appropriated and leases have expired and must be renewed.

Another of these collateral propositions is that *rent does not enter into price*. This doctrine was emphasized by Malthus and others in the corn-laws controversy. Ricardo's manner of expressing it is indicated in the passages which follow.

"The exchangeable value of all commodities, whether they be manufactured, or the produce of the mines, or the produce of land, is always regulated, not by the less quantity of labour that will suffice for their production under circumstances highly favorable, and exclusively enjoyed by those who have peculiar facilities of production; but by the greater quantity of labour necessarily bestowed on their production by those who have no such facilities: by those who continue to produce them under the most unfavorable circumstances; meaning by the most unfavorable circumstances the most unfavorable under which the quantity of produce required renders it necessary to carry on production."²⁴ In the case of production from land, the most unfavorable circumstances are those represented by the last application of capital and labor, namely those applied to the poorest quality of land or at the lowest returns on the superior qualities, and these, according to the proposition just discussed, yield no rent.

In another passage he says:²⁵ "The reason, then, why raw produce rises in comparative value, is because more labor is employed in the production of the last portion obtained, and not because rent is paid to the landlord. The value of corn is regulated by the quantity of labour bestowed on its production on that quality of land, or with that portion of capital, which pays no rent. Corn is not high because a rent is paid, but a rent is paid because corn is high."

A third corollary is that "*the rise of rent is always the effect of the*

²⁴ *Ibid.*, pp. 37 and 38.

²⁵ *Ibid.*, pp. 38 and 39.

increasing wealth of the country, and of the difficulty of providing food for its augmented population. It is a symptom, but it is never a cause of wealth; for wealth often increases most rapidly while rent is either stationary, or even falling. Rent increases most rapidly, as the disposable land decreases in its productive powers."²⁶ "When, in the progress of society," he says,²⁷ "land of the second degree of fertility is taken into cultivation, rent immediately commences on that of the first quality, and the amount of that rent will depend on the difference in the quality of these two portions of land.

"When land of the third quality is taken into cultivation, rent immediately commences on the second, and it is regulated as before, by the differences in their productive powers. At the same time, the rent of the first quality will rise, for that must always be above the rent of the second, by the difference between the produce which they yield with a given quantity of capital and labour. With every step in the progress of population, which shall oblige a country to have recourse to land of a worse quality, to enable it to raise its supply of food, rent on all the more fertile land will rise."

Conversely "it follows from the same principles, that any circumstances in the society which should make it unnecessary to employ the same amount of capital on the land, and which should therefore make the portion last employed more productive, would lower rent."²⁸

Besides a decreased volume of capital and a smaller or worse fed population, Ricardo mentions "such marked improvements, in agriculture, as shall have the same effect of diminishing the necessity of cultivating the poorer lands, or of expending the same amount of capital in the cultivation of the more fertile portion"²⁹ as a circumstance that may cause rents to fall. He concludes with the statement "that whatever diminishes the inequality in the produce obtained from successive portions of capital employed on the same or on new land, tends to lower rent; and that whatever increases that inequality, necessarily produces an opposite effect and tends to raise it."³⁰

Ricardo concludes his chapter on rent by noting that the landlord profits in two ways by increasing difficulties in the production of raw produce, namely by securing a larger share of the total produce and by a rise in the price and thus in the purchasing power of each unit of

²⁶ McCulloch, ed., *op. cit.*, p. 40.

²⁷ *Ibid.*, p. 36.

²⁸ *Ibid.*, p. 41.

²⁹ *Ibid.*

³⁰ *Ibid.*, p. 11.

the product. The following are his words⁸¹ : "Since the same cause, the difficulty of production, raises the exchangeable value of raw produce, and raises also the proportion of raw produce paid to the landlord for rent, it is obvious that the landlord is doubly benefited by difficulty of production. First he obtains a greater share, and, secondly, the commodity in which he is paid is of greater value."

E. RICARDO'S DOCTRINE OF WAGES

In the discussion of wages Ricardo distinguishes between what he calls the *natural* and the *market* price of labor and defines the former as "that price which is necessary to enable the labourers, one with another, to subsist and to perpetuate their race, without either increase or diminution," and the latter as "the price which is really paid for it, from the natural operation of the proportion of the supply to the demand."⁸² In this case, as in that of commodities in general, market price tends to conform to natural price and for the same reason, namely that, whenever the market deviates from the natural price, changes in the relation between the demand and the supply of labor take place which tend to bring them into conformity with each other. On this point Ricardo says⁸³ :

"It is when the market price of labour exceeds its natural price, that the condition of the labourer is flourishing and happy, that he has it in his power to command a greater proportion of the necessaries and enjoyments of life, and therefore to rear a healthy and numerous family. When, however, by the encouragement which high wages give to the increase of population, the number of labourers is increased, wages again fall to their natural price, and indeed from a reaction sometimes fall below it.

"When the market price of labour is below its natural price, the condition of the labourers is most wretched; then poverty deprives them of those comforts which custom renders absolute necessities. It is only after their privations have reduced their number, or the demand for labour has increased, that the market price of labour will rise to its natural price, and that the labourer will have the moderate comforts which the natural rate of wages will afford."

It is important to note that Ricardo thought of natural wages in terms of the necessities and comforts of life, i.e., of the commodities and services laborers use in the satisfaction of the wants of themselves

⁸¹ *Ibid.*

⁸² *Ibid.*, p. 50.

⁸³ *Ibid.*, p. 51.

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and their families. "The power of the labourer to support himself and the family which may be necessary to keep up the number of labourers," he says,⁸⁴ "does not depend on the quantity of money which he may receive for wages, but on the quantity of food, necessities, and conveniences become essential to him from habit which that money will purchase. The natural price of labour, therefore, depends on the price of the food, necessities, and conveniences required for the support of the labourer and his family. With a rise in the price of food and necessities, the natural price of labor will rise; with the fall in their price, the natural price of labour will fall."

Ricardo's thinking at this point is substantially like that of Malthus in his *Essay on Population*. Both thought that there is a certain quantity of necessities, comforts, and conceivably luxuries to which laborers become so accustomed by habit that, if they receive less than the amount required to purchase these, they will refuse to raise families large enough to maintain their numbers; and that, if they receive more than this amount, they will raise families so large that their numbers will increase. Both believed that the amount of these necessities, comforts, and luxuries required to induce laborers to maintain their numbers without either increase or decrease is not fixed and unchangeable, but that it varies from time to time. "It is not to be understood," says Ricardo,⁸⁵ "that the natural price of labor, estimated even in food and necessities, is absolutely fixed and constant. It varies at different times in the same country and very materially differs in different countries." It seems to have been Ricardo's opinion that in England at least it was larger in his time than it had been in times past. "Many of the conveniences now enjoyed in an English cottage," he says⁸⁶ "would have been thought luxuries at an earlier period of our history."

The force that is here counted upon to regulate the size of the laborer's family and through it the supply of labor is *the will of laborers*, the strength of the prudential check as Malthus termed it, and not natural law as it operates in other branches of the animal world—the law, namely, in accordance with which offspring born into the world under the operation of the sex instinct die from starvation and the diseases incident to undernourishment if the food available for their nourishment is inadequate, but grow to maturity and flourish if the

⁸⁴ McCulloch, ed., *op. cit.*, p. 50.

⁸⁵ *Ibid.*, p. 52.

⁸⁶ *Ibid.*, p. 52.

food supply is adequate or more. This natural law could operate in the case of labor only when the standard of life of the laboring classes is the lowest possible, namely at the point of subsistence.

The demand for labor, which, in accordance with the actually existing supply, determines actual or market wages, is, according to Ricardo, determined by the amount of capital or, more accurately perhaps, is in proportion to the amount of capital. "In proportion to the increase of capital," he says,³⁷ "will be the increase in the demand for labour; in proportion to the work to be done will be the demand for those who are to do it." In another passage he says:³⁸ "Capital is that part of the wealth of a country which is employed in production, and consists of food, clothing, tools, raw materials, etc., *necessary to give effect to labour*" (italics mine). Since the amount of capital may for a time increase more rapidly than the numbers of the laboring class, market wages for a considerable period may be above natural wages. "Notwithstanding the tendency of wages to conform to their natural rate, their market rate may, in an improving society, for an indefinite period, be constantly above it; for no sooner may the impulse which an increased capital gives to a new demand for labour be obeyed, than another increase of capital may produce the same effect; and thus, if the increase of capital be gradual and constant, the demand for labour may give a continued stimulus to an increase of people."³⁹

According to Ricardo, the relative rates of increase of capital and population and thus of the demand and supply of labor are different in different "stages of society" and depend chiefly upon the "abundance of fertile land." He says⁴⁰: "In new settlements, where the arts and knowledge of countries far advanced in refinement are introduced, it is probable that capital has a tendency to increase faster than mankind; and if the deficiency of labourers were not supplied by more populous countries, this tendency would very much raise the price of labour. In proportion as these countries become populous, and land of a worse quality is taken into cultivation, the tendency to an increase of capital diminishes⁴¹; for the surplus produce remaining, after satisfying the wants of the existing population, must necessarily be in proportion to the facility of production. Although, then, it is probable that under the

³⁷ *Ibid.*, p. 51.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*, p. 53.

⁴¹ The reasons for this statement are developed in Ricardo's chapter on profits, where he attempts to show that profits tend to fall with the natural advance of society and connects the rate of profits and the rate of increase of capital as cause and effect.

most favorable circumstances the power of production is still greater than that of population, it will not long continue so; for the land being limited in quantity, and differing in quality, with every increased portion of capital employed on it, there will be a decreased rate of production, whilst the power of population continues always the same."

In his discussion of the interaction of the forces which determine market and natural wages, Ricardo makes some statements which indicate his belief that in the natural advance of society laborers will meet with increasing difficulty in maintaining their standard of life. For example, he says ⁴² :

"In the natural advance of society the wages of labour will have a tendency to fall, as far as they are regulated by supply and demand; for the supply of labourers will continue to increase at the same rate, whilst the demand for them will increase at a slower rate. . . . I say that, under these circumstances, wages would fall, if they were regulated only by the supply and demand of labourers; but we must not forget that wages are also regulated by the prices of the commodities on which they are expended.

"As population increases these necessities will be constantly rising in price, because more labour will be necessary to produce them. It, then, the money wages of labour should fall, whilst every commodity on which the wages of labour were expended rose, the labourer would be doubly affected, and would be soon totally deprived of subsistence. Instead, therefore, of the money wages of labour falling, they would rise; *but they would not rise sufficiently to enable the labourer to purchase as many comforts and necessities as he did before the rise in the price of those commodities*" (italics mine).

In a statement following he gives numerical illustrations of his doctrines in which he assumes that the money wages of laborers will be so adjusted that they will be able always to purchase the same quantity of commodities. He expresses the same view in the following words ⁴³ : "In proportion as corn becomes dear, he would receive less corn wages, but his money wages would always increase, whilst his enjoyments, on the above supposition, would be precisely the same. But as other commodities would be raised in proportion as raw produce entered into their composition, he would have more to pay for some of them. Although his tea, sugar, soap, candles and house rent would probably be no dearer, he would pay more for his bacon, cheese, butter, linen, shoes,

⁴² McCulloch, ed., *op. cit.*, pp. 54 and 55.

⁴³ *Ibid.*, p. 56

and cloth; and therefore, *even with the above increase of wages*, his situation would be comparatively worse" (italics mine).

It is not clear from Ricardo's discussion whether he means to imply by the above statements that the standard of life of the laboring classes is likely slowly to fall with the advance of society or simply that this would be the result if they did not prevent it by decreasing the number of their members. There is nothing in the principles he expounds to prevent laborers from not only maintaining but even raising their standard of life. Everything depends upon the way in which their wages react upon the size of their families.

The pessimistic view of the probable future of the laboring classes suggested in the passages above quoted is placed by Ricardo in contrast with that of the landlord class in the following statements ⁴⁴ :

"It appears, then, that the same cause which raises rent; namely, the increasing difficulty of providing an additional quantity of food with the same proportional quantity of labour, will also raise wages, and therefore, if money be of an unvarying value, both rent and wages will have a tendency to rise with the progress of wealth and population.

"But there is this essential difference between the rise of rent and the rise of wages. The rise in the money value of rent is accompanied by an increased share of the produce; not only is the landlord's money rent greater, but his corn rent also; he will have more corn, and each defined measure of that corn will exchange for a greater quantity of all other goods which have not been raised in value. The fate of the labourer will be less happy; he will receive more money wages, it is true, but his corn wages will be reduced; and not only his command of corn, but his general condition will be deteriorated, by his finding it more difficult to maintain the market rate of wages above their natural rate. While the price of corn rises 10 per cent, wages will always rise less than 10 per cent, but rent will always rise more; the condition of the labourer will generally decline, and that of the landlord will always be improved."

F. RICARDO'S DOCTRINE OF PROFITS

Having explained the share in the joint product of land, labor, and capital obtainable by landlords and laborers respectively, Ricardo treats the capitalist as the residual claimant, assigning to him what remains. To Ricardo, therefore, profits are total product minus the sum of the rents and wages paid to the cooperating landlords and laborers. He simplifies the problem still more by directing attention to the no-rent or

⁴⁴ *Ibid.*, p. 55.

marginal lands and the no-rent application of capital, thus eliminating rent from the calculation and explaining profits as the product of no-rent lands and no-rent capital minus the wages paid to the coöperating laborers. It follows, therefore, that the greater the share of labor the smaller that of capital. Ricardo says ⁴⁵:

"We have seen that the price of corn is regulated by the quantity of labour necessary to produce it with that portion of capital which pays no rent. We have seen, too, that all manufactured commodities rise and fall in price, in proportion as more or less labour becomes necessary to their production. Neither the farmer who cultivates the quantity of land, which regulates price, nor the manufacturer, who manufactures goods, sacrifices any portion of the produce for rent. The whole value of their commodities is divided into two portions only; one constitutes the profits of stock, the other the wages of labor.

"Supposing corn and manufactured goods always to sell at the same price, profits would be high or low in proportion as wages were low or high. But suppose corn to rise in price because more labour is necessary to produce it; that cause will not raise the price of manufactured goods in the production of which no additional quantity of labour is required. If, then, wages continued the same, the profits of manufacturers would remain the same; but, if, as is absolutely certain, wages should rise with the rise of corn, then their profits would necessarily fall."

Under the same circumstances Ricardo claims that the profits of farmers as well as those of manufacturers would fall in spite of the fact that the rise in the price of corn increases the value of each unit of their product. This is true because, according to his doctrine of value, the rise in the price of each bushel of corn produced on the margin and the number of bushels produced are so related that the total money value of the marginal product remains constant, and, since a larger amount must be paid to laborers in order to enable them to command the same quantity of necessaries, the amount left for the farmers is necessarily smaller. In the following passages ⁴⁶ Ricardo makes this clear by means of numerical illustrations:

"It has been already remarked that if the labour of ten men will, on land of a certain quality, obtain 180 quarters of wheat, and its value be 4*£*. per quarter, or 720*£*.; and if the labour of ten additional men will, on the same or any other land, produce only 170 quarters in addition, wheat would

⁴⁵ McCulloch, ed., *op. cit.*, p. 60.

⁴⁶ *Ibid.*, p. 62.

rise from 4*£*. to 4*£*. 4*s*. 8*d*.; for 170 : 180 :: 4*£*. : 4*£*. 4*s*. 8*d*. In other words, as for the production of 170 quarters, the labour of ten men is necessary in the one case, and only that of 9.44 in the other, the rise would be as 9.44 : 10, or as 4*£*. : 4*£*. 4*s*. 8*d*. In the same manner, it might be shown that if the labour of ten additional men would only produce 160 quarters, the price would further rise to 4*£*. 10*s*.; if 150, to 4*£*. 16*s*., etc., etc.

"But when 180 quarters were produced on the land paying no rent and its price was 4*£*. per quarter, it sold for *£*720.

"And when 170 quarters were produced on the land paying no rent, and the price rose to 4*£*. 4*s*. 8*d*., it sold for *£*720.

"So 160 quarters at 4 <i>£</i> . 10 <i>s</i> . produce	<i>£</i> 720.
And 150 quarters at 4 <i>£</i> . 16 <i>s</i> . produce	<i>£</i> 720.

"Now, it is evident that if, out of these equal values, the farmer is at one time obliged to pay wages regulated by the price of wheat at 4*£*., and at other times at higher prices, the rate of his profits will diminish in proportion to the rise in the price of corn."

Ricardo puts his doctrine in a nutshell in the statement ⁴⁷ "that profits depend on high or low wages, wages on the price of necessaries, and the price of necessaries chiefly on the price of food" and concludes that "the natural tendency of profits then is to fall; for, in the progress of society and wealth, the additional quantity of food required is obtained by the sacrifice of more and more labour."

"This tendency," he adds, ". . . is happily checked at repeated intervals by the improvements in machinery connected with the production of necessaries, as well as by discoveries in the science of agriculture, which enable us to relinquish a portion of labour before required, and therefore to lower the price of the prime necessary of the labourer." It should be noted, however, that in the opinion of Ricardo such improvement and discoveries *check* but do not eliminate the tendency of profits to fall. In spite of them profits will fall, but not so rapidly as without them.

G. CONFLICTING INTERESTS OF LANDLORDS, LABORERS, AND CAPITALISTS

According to the reasoning outlined in the preceding sections of this chapter, the cost of producing corn on the margin of cultivation is a force of major importance in the distribution of wealth. Changes in it affect the proportions between rent, wages, and profits in such a manner as to indicate a real conflict of interest between landlords on the one

⁴⁷ *Ibid.*, p. 66.

hand and laborers and capitalists on the other. When this cost rises, rents increase not only absolutely but proportionally, profits fall, and, while money wages rise, real wages, that is what the money wages will buy, at the best remain stationary and at the worst slightly fall. A fall in costs on the margin causes a fall in rents both absolutely and relatively, a rise in profits, and a fall in money but not in real wages. The interests of landlords seem, therefore, to be opposed to that of the other two classes. Ricardo's manner of expressing this conflict from the standpoint of laborers was indicated in a quotation at the close of the section on wages. From the standpoint of capitalists it is expressed in the following passage ⁴⁸ : "The farmer, then, although he pays no part of his landlord's rent; that being always regulated by the price of produce, and invariably falling on the consumers, has, however, a very decided interest in keeping rent low, or rather in keeping the natural price of produce low. As a consumer of raw produce, and of those things into which raw produce enters as a component part, he will, in common with all other consumers, be interested in keeping the price low. But he is most materially concerned with the high price of corn as it affects wages. With every rise in the price of corn, he will have to pay out of an equal and unvarying sum of £720, an additional sum for wages to the ten men whom he is supposed constantly to employ. We have seen, in treating on wages, that they invariably rise with the rise in the price of raw products."

⁴⁸ McCulloch, ed., *op. cit.*, p. 63.

CHAPTER X

THE PERIOD INTERVENING BETWEEN 1815 AND 1848

A. ECONOMIC CONDITIONS

The period which intervened between the publication of Ricardo's *Principles* and Mill's *Principles* was, in many respects, a continuation of the preceding one. In England it witnessed the practical completion of the process of the substitution of capitalist cultivators and agricultural laborers for the yeomen farmers, and the extension of the factory system to the point of dominance in the industrial life of the nation. The principle of individual liberty in economic affairs also dominated the policy of the English government to a greater extent during this period than ever before. As evidence of this may be cited the repeal of the laws permitting the assessment of wages by justices of the peace, the taking-away of the last vestiges of trade monopoly from the East India Company, the repeal of the corn-laws, and a radical modification of the Navigation Acts.

Characteristic of the period also was the clearer revelation of some consequences of the operation of the new economic forces. The most important of these was the effect they were producing on the laboring class. In the country the agricultural laborer was now almost entirely dependent upon his wages. His rights in the commons and his by-industries were gone, and a vicious system of poor-relief had gone far towards pauperizing him. In the manufacturing districts, slums, unsanitary factories, and child labor threatened the health, happiness, and well-being of the workers. The early factories were constructed with little reference to the health and comfort of those who had to work in them. Many of them indeed were buildings constructed for other purposes which had been transformed to adapt them mechanically to their new uses. Children were employed in large numbers, and the hours of employment were long and the wages frequently low. Conditions in the mines were even worse than in the factories.

The new forces also revealed during this period new aspects of the phenomena of commercial crises and new phases of the operation of

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credit. The crises of 1810, 1826, 1837, 1839, and 1847 were results of essentially new commercial and credit conditions. The old methods of adjusting production to consumption had disappeared with the almost complete separation of the industries of agriculture and manufacturing and of the capitalist class from the labor class and with the necessity under which England found herself placed of regularly bartering her manufactures for the products of foreign agriculture. New methods had not yet evolved or been devised. The free play of competition proved to be inadequate, and the result was frequent and serious maladjustments.

A new credit system had also been evolved. Country banking, which began much earlier, developed rapidly in this period, and the note issues through which it operated became an important element in the currency of the country. Their ready acceptance and easy circulation as hand-to-hand money opened wide the door for loose banking and for an overextension of credit. The new industrial and commercial enterprises of the period offered abundant opportunity for utilizing these apparent advantages, and the result was the extension of credit to enterprises that should never have been encouraged, and of too much credit to those which deserved some, with results which were new in those days, but which have become very familiar to us of the present time. The introduction of banks of discount and the bank act of 1844 were the direct effects of the new phenomena, but further reaching and probably more important from the point of view of economic science were the discussions and the thinking for which they were responsible.

The application of steam to the industry of transportation in the form of the steamship and the locomotive was a transforming influence of the first magnitude. Its chief effects belong to subsequent periods, but some of them were experienced in this.

B. REFORM MOVEMENTS

These rapidly changing economic conditions were accompanied by agitation for reform, in which the economists were active and by which they were influenced. Their leader and chief inspiration in this phase of their work was Jeremy Bentham, whose life spanned the period from 1748 to 1832. His influence as a writer, thinker, and social reformer began in 1776 when he published *A Fragment on Government*, in which he criticized Blackstone and expressed some novel and almost revolutionary ideas about government in England. He attended Oxford University at an early age and subsequently studied law at Lincoln's Inn; but, contrary to the desire and intention

of his father, who was a solicitor of considerable means, he did not practise the profession for which he had been trained but instead devoted his long life to a study of the fundamentals of social philosophy and the reform of social institutions. His principal published writings were *Introduction to the Principles of Morals and Legislation* (1789), *Theory of Pains and Recompense* (1811), *Tactics of Legislative Assemblies* (1816), *Treatise on Judicial Evidence* (1823), and *Judicial Organization and Codification* (1823). The first of these was popularized by Dumont, a Frenchman, who published in 1802 his *Traité de législation civile et pénale*, which seconded and greatly extended Bentham's influence.

The basic idea of Bentham's social philosophy is what he called "the principle of utility," expressed in the following words in the first paragraph of the first chapter of his *Introduction to the Principles of Morals and Legislation*¹: "Nature has placed mankind under the governance of two sovereign masters, *pain* and *pleasure*. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne. They govern us in all we do, in all we say, in all we think; every effort we can make to throw off our subjection, will serve but to demonstrate and confirm it. In words a man may pretend to abjure their empire, but in reality he will remain subject to it all the while. The *principle of utility* recognizes this subjection and assumes it for the foundation of that system, the object of which is to rear the fabric of felicity by the hands of reason and of law. Systems which attempt to question it, deal in sounds instead of sense, in caprice instead of reason, in darkness instead of light."²

He attempted to demonstrate this proposition by carefully defining its key words and phrases, by analyzing and explaining their meaning, and by criticizing the two opposing principles of human conduct which he called "asceticism" and "sympathy and antipathy." He then presented a detailed analysis and classification of pleasures and pains and a plan for their measurement, in which he prescribed, as features to be considered, their intensity, duration, certainty or uncertainty, propinquity or remoteness, fecundity (or "the chance . . . of being followed by sensations of the same kind"), and purity ("or

¹ Except as indicated otherwise, all quotations are from, and references are to, the two-volume edition of W. Pickering, published in 1823 in London.

² *Ibid.*, I, 1 and 2.

the chance . . . of not being followed by sensations of the opposite kind").

He applied this principle of utility to the conduct of society as well as to that of individuals and regarded it as the sole and only proper guide for legislators, judges, administrators, criminologists, economists, sociologists, and statesmen of all kinds. "The community," he said, "is a fictitious *body*, composed of the individual persons who are considered as constituting it" and "the interest of the community" is "the sum of the interests of the several members who compose it."³ Approval or disapproval of a public act should be determined, according to his view, solely by the balance of pleasure or of pain that results or tends to result from it and this must be found by adding the pleasures and pains it produces upon each of the individuals involved and comparing the magnitudes of the two sums. Acts of government always involve a choice and comparison of evils, since every law is an infraction of liberty and therefore an evil, and it is the duty of the legislator to compare the magnitude of the evil a proposed law is designed to prevent or remove and that likely to be produced by its operation, and to enact it only in case the former is greater than the latter.

According to Bentham, morality and legislation have the same object, namely the greatest possible amount of well-being. They differ only in scope. All acts both public and private belong to the domain of morals. "It is a guide which can lead the individual, as it were by the hand, into all the details of life, into all his relations with his kind. Morality prescribes to each individual to do everything which is advantageous to the community, including his own personal advantage; but there are many acts useful to the community which legislation cannot command, many injurious acts which it cannot prohibit, though morality may. In a word, legislation has the same center as morality but not the same circumstances."⁴

Bentham's philosophy and personality made him the central figure and inspiration of a group of reformers known as the Philosophical Radicals who were very active and effective during the period here under consideration. It included James Mill and his son, John Stuart Mill, Ricardo, several members of Parliament, the prominent Whig, Sir James Mackintosh, the one-time Lord Chancellor Henry Brougham,

³ Pickering, ed., *op. cit.*, I, 4.

⁴ Raffolovich, *Bentham* (Petite Bibliothèque Économique), p. 45.

the second Sir Robert Peel, prominent journalists, authors, and other influential persons.

These people believed that the time had come for radical reforms in the government and social life of England. In particular they held that the distribution of seats in Parliament and the right to vote for its members should be changed so as to make that body more nearly representative of different sections of the country and classes of the people; that local government should be made more independent and democratic; that criminal law and court procedure should be thoroughly overhauled in the interests of common sense and justice; that education for all the people should be provided at public expense if necessary; that the laws which created discriminations against Catholics and Dissenters and which forbade combinations among laboring men and the corn-laws should be repealed; and that the poor laws and their administration should be changed. Bentham's philosophy supplied a rational foundation for these and other reforms. The Philosophical Radicals did not affiliate with either of the great political parties but employed all available agencies, including the press, the platform, and societies formed especially for this, and sometimes those formed for other, purposes. They frequently joined with other groups of reformers with many and perhaps most of whose aspirations they were not in sympathy, notably with radical labor leaders and associations.

The reform legislation which characterized this period cannot, of course, be placed to the exclusive credit of this group, but that its influence was important and efficient cannot be questioned. The laws against the combination of laborers and against Catholics and Dissenters were repealed. An act passed in 1832 abolished the so-called "pocket boroughs," diminished the number of representatives in Parliament allowed to a number of favored cities, and redistributed the vacated seats among the counties, not adequately represented, and the new cities that had sprung up or greatly increased in size since the beginning of the industrial revolution and which were entirely unrepresented. The franchise was also extended, but not nearly so much as the reformers desired. A municipal reform act was passed which substituted uniformity for the great diversity of local governments which had developed during the preceding centuries and gave the municipalities greater independence in the management of purely local affairs and a much more democratic constitution. In 1834 a new

poor law was passed which substituted the workhouse for the allowance system and transferred administration from the parishes to larger units. One after another during the period, duties upon imports were abolished or lowered and in 1846 the corn-laws were repealed. In 1844 the so-called "bank act" was passed which changed the constitution of the Bank of England and the credit system of the country. A beginning in factory legislation was also made which gave some protection to the children exploited in the factories and mines. Parliament also began more liberally to provide funds for popular education and gave attention to the subjects of public hygiene and sanitation.

The influence of the events of this period upon political economy and political economists was not so direct and is not so easy to specify as was the case in the preceding one. Abstract thinking according to the method made popular by Ricardo played a larger rôle than ever before, but there were other and diverse influences at work. Critics, especially of some of Ricardo's doctrines, appeared, some of them—e.g., Malthus, Richard Jones, and Nassau Senior—being in agreement on most points but taking exceptions to and insisting on modifications of others, while others—e.g., Robert Owen and radical labor leaders—were hostile to the whole system of thought Ricardo represented. The laissez-faire doctrine, which more nearly dominated the practice of this period than any preceding one, met vigorous opponents in the advocates of factory legislation, trades-unions, and other forms of social legislation. The influence of the period on political economy, however, can best be seen in the life and writings of John Stuart Mill. Before discussing that topic, however, we shall describe the dissenting ideas of the minor critics and the doctrinal modifications they proposed.

C. MALTHUS'S CRITICISM OF THE RICARDIAN DOCTRINE OF RENT

While Malthus and Ricardo were in accord regarding some of the essential features of the explanation of rent, they differed widely on others. Malthus's dissenting views were expressed in correspondence with Ricardo and in his *Principles of Political Economy*, first published in 1820 (second edition in 1836). He objected especially to the doctrine that rent is the payment for a monopoly, and to Ricardo's analysis of the effect of improvements.

Malthus based his first objection on the proposition that the rent of land is the difference between the value of its product and the cost

of producing it, including under the latter head the wages of labor, the replacement of the capital consumed, and profits at the current rate on the capital employed during the production period. What, then, determines the difference between these two aggregates? His answer is the following three circumstances⁵:

"First, and mainly, that quality of the soil by which it can be made to yield a greater quantity of the necessities of life than is required for the maintenance of the persons employed on the land.

"Secondly, that quality peculiar to the necessities of life, when properly distributed, of creating their own demand, or of raising up a number of demanders in proportion to the quantity of necessities produced.

"And thirdly, the comparative scarcity of fertile land, either natural or artificial."

The first of these circumstances, he says, is a gift of nature to man and is quite unconnected with monopoly, and the amount of rent is strictly proportional to the lavishness of this gift and not to anything that man has done. If land had been so meagerly endowed with fertility that its yield could no more than replace the costs of its production, there would and could have been no rent even though the conditions of ownership were the same as at the present time. The surplus above costs due to "natural or acquired fertility" and not the monopolization of the land must, therefore, "be considered as the foundation or main cause of all rent."⁶

Malthus uses the second circumstance mentioned above to explain why this surplus has a high value. It is because population tends to increase in proportion to the volume of necessities available for consumption. The more necessities, the more people, and, since people cannot live without these necessities, a demand for them is assured. He insists that in this particular the products of the soil, food and other necessary raw materials, differ from all other products.

The third circumstance noted by Malthus in his explanation of the difference between the value of the produce of land and the costs of its production, namely, "the comparative scarcity of fertile land," accounts for what he describes as "the necessary separation of the rent of land from the profits of the cultivator and the wages of the labourer." It is because some lands are more fertile than others and

⁵ *Political Economy*, 2d ed., p. 140.

⁶ *Ibid.*, p. 141.

because those of relatively high fertility are relatively scarce that rent is paid to landlords and that we need to distinguish rent from wages and profits.

On this latter point Malthus and Ricardo were in substantial agreement. They differed in the importance to be attached to the two preceding ones. The circumstances which separate rent from wages and profits, to Ricardo, were the all-important ones. It was the proportion between those three shares in the national dividend that he aimed to explain and that constituted the subject of distribution as he understood and explained it. Malthus's objections to his use of the word *monopoly* in describing the landlord's share touched a side issue rather than a vital point in his theory. In part also the differences between them concerned the meaning of the word *monopoly*, and the differences between land and other monopolies.

According to Ricardo, the effect of improvements is to counteract the influence of the law of diminishing returns. The immediate effect is to diminish either corn rents or money rents or both, and the ultimate effect is to prevent as rapid a rise of rents as would be liable to take place under other circumstances. Malthus denied this doctrine and maintained the opposite. According to his view, the effect of improvements is always to increase rents. His argument is based upon the general proposition that rent is the difference between the value of the produce and the cost of producing it and that improvements, if worthy of the name, diminish the cost of production. He admits that the immediate effect may be to raise profits instead of rents, but claims that competition between capitalists occasioned by such an increase would speedily bring profits down to their former level and enable the landlord to reap the benefit of the improvement.

Malthus also disapproved of Ricardo's conclusion that the interests of landlords are opposed to those of the other members of society, asserting that the former are in essential harmony with the latter. In support of this assertion he relied chiefly upon the arguments already described, particularly those by which he attempted to show that the effect of improvements is to increase rents. He maintained that improvements in agriculture "have been hitherto, and may be expected to be in the future, the *main* source of the increase of rents, in almost all the countries with which we are acquainted,"⁷ and that Ricardo's error (according to his view of the matter) was due to his failure to recognize this fact and to his giving attention almost ex-

⁷ *Political Economy*, 2d ed., p. 196.

clusively to the effect upon rents of increasing difficulty of producing food and other raw materials.⁸ According to Malthus, improvements in cultivation are advantageous to society, since they make possible a larger population and a higher degree of well-being among all classes. On the contrary, any combination of circumstances which causes rents to fall injures all other members of society, since it involves a decline in agricultural industry, a diminution of the volume of food and raw materials, and a consequent lowering of the general level of well-being.

D. RICHARD JONES

Another critic of the Ricardian doctrine of rent was Richard Jones, Malthus's successor at Haileybury College, who in 1831 published a treatise on rent as the first instalment of a contemplated work on the subject of distribution which he never completed.⁹

First of all he criticized Ricardo's doctrine of the origin of rent, namely that the best lands are first cultivated and that rent first appears when it is necessary to resort to lands of a lower degree of fertility or to apply additional capital to the cultivation of the best lands at a diminished return. Jones put this doctrine to the test of the facts revealed by history and the relations between landlords and tenants throughout the world at the time he wrote, with the result stated in the following passage: "In the actual progress of human society, rent has usually originated in the appropriation of the soil, at a time when the bulk of the people must cultivate it on such terms as they can obtain, or starve; and when their scanty capital, of implements, seed, etc., being utterly insufficient to secure their maintenance in any other occupation than that of agriculture, is chained with themselves to the land by an overpowering necessity. The necessity then, which compels them to pay a rent, it need hardly be observed, is wholly independent of any difference in the quality of the ground they occupy, and would not be removed were the soils all equalized."¹⁰

His investigations also led him to the conclusion that rents cannot be explained by any single principle; on the contrary, that different principles have operated at different times and under different cir-

⁸ *Ibid.*, Ch. III., sec. VIII.

⁹ After Jones's death the Reverend William Whewell, D.D., edited the existing manuscripts, and these were published in London in 1859 under the title *Literary Remains Consisting of Lectures and Tracts on Political Economy of the Late Rev. Richard Jones*. These cover in part the field of distribution.

¹⁰ Rev. Richard Jones, *An Essay on the Distribution of Wealth and on the Sources of Taxation* (London, 1831), p. 11.

cumstances. When the cultivators of the soil consist of peasants, who work with their own hands and a scanty capital and pay rent directly to a proprietor who is either a sovereign or a great landlord, rents are determined by custom or by the kind of contract these peasants are able to make with their landlords. These he classes as *Peasant Rents*. On the other hand, when capitalist farmers rent land from proprietors and hire laborers under competitive conditions and carry on the business of agriculture for the profits they can make on the employment of their capital as other capitalists conduct manufactures and commerce, rents are determined by very different principles. These he classed as *Farmers' Rents*. Peasant Rents, which he subclassified as Labor or Serf Rents, Metayer Rents, Ryot Rents, and Cottier Rents, have been in the past and still are the most common. Farmers' rents are exceptional, being found chiefly in England and to some extent in Holland and parts of the United States.

Where farmers' rents prevail, the capitalist farmers are free to move their capital from agriculture to other industries and will do so, if higher profits are obtainable. In agriculture, therefore, they can and will command the rate of profits that is elsewhere generally available. Under these conditions, says Jones,¹¹ "rent necessarily consists merely of *surplus profits*: that is, of all that can be gained by employing a certain quantity of capital and labor upon the land, more [than] could be gained by it in any other occupation."

The explanation of the increase of these surplus profits on "a particular spot of ground" Jones found in the following circumstances¹²: "First, an increase of the produce from the accumulation of larger quantities of capital in its cultivation; secondly, the more efficient application of capital already employed; thirdly (the capital and produce remaining the same), the diminution of the share of the producing classes in that produce, and a corresponding increase of the share of the landlord. These causes may combine in different proportions in the augmentation of the rents of a country cultivated by capitalists, but when the distinct power and mode of operation of each are once understood, their joint action will be easily calculated."

He illustrated as follows¹³ the manner in which the first of these causes operates:

"Let A represent a class of land which returns only the ordinary profits

¹¹ Jones, *op. cit.*, p. 188.

¹² *Ibid.*, pp. 189 and 190.

¹³ *Ibid.*, p. 204.

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of stock at 10 per cent and pays no rent. Let B, C, and D represent other portions of better land, also cultivated with a capital of £100, and let their produce be as follows:

A	B	C	D
£110	£115	£120	£130

All above £110 in each, will be *surplus profits*, or rent of which B will pay £5, C £10, and D £20. Next let the capital employed on each be doubled, without a diminished return, and without disturbing the proportion between the produce of each or altering their relative fertility, their produce will be as follows:

A	B	C	D
£220	£230	£240	£260

All above £220 in each will be *surplus profit*, or rent, of which B will pay £10; C £20; and D £40. That is, the rent of each will be doubled."

It will be observed that he assumes that the product increases proportionately with the amount of capital employed, thus disregarding the law of diminishing returns. He defends this assumption on the ground that this doctrine is disproved by facts and by reason. He admitted that there is a point "beyond which agricultural production cannot be forced without a loss" but denied that this admission justifies the conclusion "that man with increasing knowledge and means, cannot advance from his rudest essays towards this indefinite point, without sustaining at each step a loss of productive power."¹⁴ On the contrary, he insisted that, before this point is reached, returns to more intensive cultivation may be proportionate or even more than proportionate to the amounts of labor and capital employed.¹⁵

It should also be noted that in the above illustration he assumed that the demand for the products of the soil keeps pace with the supply, an assumption which he considers quite as well justified as the one Ricardo made when he assumed demand stationary and argued that an increase of production under such circumstances would throw the poorest lands out of cultivation and diminish rents.

Throughout this discussion the contention of Jones is that Ricardo has erred in associating increasing rents exclusively with diminishing returns in agriculture, and that on the contrary rents may and do normally increase as a result of increasing production from a given area of land due to the application of additional units of labor and capital and to the increasing efficiency of each unit.

¹⁴ *Ibid.*, p. 202.

¹⁵ *Ibid.*, pp. 199 and 200.

It is unnecessary to follow in detail Jones's explanation of the manner in which the increasing efficiency of capital, or what Ricardo calls improvements, cause rents to increase. By decreasing the costs of production such improvements, he says, normally widen the margin between total product and costs and thus increase the surplus profits which constitute rents. Whether increasing efficiency shows itself in the form of a larger product with the same capital or the same product with a smaller capital, he asserts that "rents will rise and unless the progress of improvement outstrips the progress of population, and the growth of produce exceeds the growth of demand (an event rarely to be expected), this rise of rents, from the increased efficiency of the capital employed, will be permanent."¹⁶

The third cause of increase of rents recognized by Jones, namely, "a decrease in the share of the producing classes," operates whenever for any reason the relative value of raw produce rises, since such a rise—the total amount of the produce remaining the same—will increase its total value and thus raise the profits on capital employed in agriculture above those employed in other industries. When leases are renewed, these surplus profits will go to the landlords in the form of increased rents. As against Ricardo, he argues that such an increase in the value of raw produce "proceeds always, in the first instance, from an increased demand without a corresponding increase of supply,"¹⁷ and that a resort to inferior soils, if it takes place, follows instead of precedes it and is therefore a result and not a cause of it.

Unlike an increase of rents from the two other causes recognized by Jones, this one is not accompanied by an increase in produce and thus an "addition to the resources" of the country. It is "a mere transfer of a portion of the wealth already existing from the producing classes to the landlords." He insisted, however, that it is not necessarily accompanied by a "falling off in the returns to capital and labor generally." He attempts to show that what they lose as a result of the smaller share of raw produce they receive "may be balanced by the increased efficiency of manufacturing labor."¹⁸

Jones concludes his discussion by combating the doctrine that the interests of the landlord class are opposed to those of other members of society. He admits that occasionally they may gain at the expense of other classes, but insists that the same may be said of laborers and

¹⁶ Jones, *op cit.*, p. 237.

¹⁷ *Ibid.*, pp. 245 and 246.

¹⁸ *Ibid.*, pp. 248-255.

capitalists. "The fact is," he says, "that the prosperity which each class can grasp by the depression of others, is, by the laws of nature, limited and insecure. The advantages which each may draw from sources of increasing wealth, common to all, or at least injurious to none, are safe, and capable of being pushed to an extent of which the limits lie beyond our experience, or means of calculation. And in this respect, there is no difference in the social position of the landlords, and that of the other classes which compose the state."¹⁹

E. SENIOR'S DOCTRINE OF ABSTINENCE

One of the keenest English thinkers of this period was William Nassau Senior, who was a professor of economics at the University of Oxford in the years 1817-1831 and 1847-1864, the date of his death. At times he also served as a member of the Senate and of the examining committee in political science of the University of London, as a member of the committee on the reform of the poor laws, and as master of chancery. He was educated for the legal profession and was admitted to its ranks in 1817. He had an analytical mind which he used effectively in a critical analysis of the economic doctrines current in his day. Many of his lectures on political economy at the University of Oxford were published in book form as was also an article on political economy first published in 1835 in the *Encyclopædia Metropolitana*.²⁰

In the latter publication, in the analysis of what he calls the "instruments of production," Senior classified labor and natural agents as *primary* instruments and abstinence as a *secondary* one. The reason for this distinction seems to have been merely that labor and natural agents may operate independently and without the coöperation of abstinence. "But," he says,²¹ "although Human Labor, and the Agency of Nature, independently of that of man, are the primary Productive Powers, they require the concurrence of a Third Productive Principle to give them complete efficiency. The most laborious population inhabiting the most fertile territory, if they devoted all their labour to the production of immediate results, and consumed its produce as it arose, would soon find their utmost exertions insufficient to produce even the mere necessities of existence."

This third principle is abstinence, which he defined as "the conduct

¹⁹ *Ibid.*, p. 288.

²⁰ For a list of his publications, see *Handwörterbuch der Staatswissenschaften*, Vol. V.

²¹ *Political Economy* (reprinted from the second revised edition of the *Encyclopædia Metropolitana*), p. 58.

of a person who either abstains from the unproductive use of what he can command, or designedly prefers the production of remote to that of immediate results." ²² Labor he defined as "the voluntary exertion of bodily or mental faculties for the purpose of Production," ²³ and natural agents as "every productive agent so far as it does not derive its powers from the act of man." ²⁴ Labor and abstinence are thus characterized as the human or man-supplied instruments of production and distinguished as the *voluntary conduct of men*, in the one case *in the use of the wealth at their command* and in the other *in the use of their bodily and mental faculties*.

He contrasted this view of the instruments of production with the one current in his time which designated them as "Labor, Land, and Capital" and defended the use of the term *natural agents* in place of *land* on the ground that it avoids "designating a whole genus by the name of one of its species" ²⁵; he also defended the substitution of abstinence for capital as the third factor on the ground that capital "is not a simple productive instrument; it is in most cases the result of all the three productive instruments combined. Some natural agent must have afforded the material, some delay of enjoyment must in general have reserved it from unproductive use, and some labor must in general have been employed to prepare and preserve it." "By the word Abstinence," he says, "we wish to express that agent, distinct from labour and the agency of nature, the concurrence of which is necessary to the existence of Capital, and which stands in the same relation to Profit as Labor does to Wages." ²⁶

These conceptions of labor and abstinence and of their relations to production prepared the way for some noteworthy modifications of the current theories of value, interest, and capital.

In his explanation of natural value Ricardo recognized the necessity of taking account of the fact that interest must be paid on the capital consumed in production. The substance of the capital itself he treated as stored-up or past labor which, added to the labor immediately or currently employed, constituted the total labor costs. The fact that the amount of interest normally paid on this capital is not always, and perhaps never, exactly proportional to these costs forced him to admit that goods do not naturally exchange for each other

²² *Political Economy*.

²³ *Ibid.*, p. 57.

²⁴ *Ibid.*, p. 58.

²⁵ *Ibid.*, p. 59.

²⁶ *Ibid.*

in exact proportion to their labor costs, but he considered this deviation from the labor cost principle so small as to be negligible, and in consequence he disregarded it in his reasoning on topics in which the subject of value was fundamental.

Adam Smith included profits among the necessary costs of production, as did also Malthus, while Robert Torrens insisted that they are surplus over and above the costs of production, being in fact the difference between the total value of the product and its costs. James Mill included profits among the costs of production, but explained them as the result of a species of labor which added to the labor immediately employed and to that represented by capital constitute the costs or the natural value of commodities.²⁷

It was Senior's opinion that these divergent and conflicting views were due to the failure of their authors to appreciate the rôle played by abstinence in production. All recognized the existence of this force but thought of it merely in its connection with the origin of capital. "Want of the term abstinence, or of some equivalent expression," he said,²⁸ "has led Mr. Malthus into inaccuracy of language. He seems to have felt that something besides mere labour is essential to production. He felt that simple industry would not convert a naked heath into a valuable wood; that the planter in addition to the labour of inserting and protecting the saplings, incurred the additional *sacrifice* of directing his labour to the production of remote results; and that the successive generations of proprietors, in suffering the young plantation to become mature, sacrificed their own emolument to that of their successors. He seems to have felt that these sacrifices were part of the cost of producing the wood and, having no term to express them, he denoted them by the name of their reward. When he termed profit a part of the cost of production, he appears to us to have meant not profit, but that conduct which is repaid by profit: an inaccuracy precisely similar to that committed by those who term wages a part of the cost of production; meaning not wages, which are a result, but the labour for which wages are the remuneration.

"Colonel Torrens' error is an error of omission. He refuses to consider profit as a part of the cost of production, but he does not substitute for it abstinence or any equivalent expression. Although he admits that where equal capitals are employed the value of the prod-

²⁷ See James Mill's *Elements of Political Economy*, 3d ed., pp. 103 and 104, and Torrens's *An Essay on the Production of Wealth*, p. 54.

²⁸ *Op. cit.*, p. 100.

ucts may differ if the one be brought to market sooner than the other, he has not stated the principle on which this difference depends."

According to Senior, therefore, the cost of production, which constitutes natural value, is "the sum of the labour and abstinence necessary to production,"²⁹ both labor and abstinence being conceived as *sacrifices* made by men in order to obtain the goods required for the satisfaction of their wants. The substitution of this conception of costs for Ricardo's eliminated the necessity of making exceptions to the principle that normal or natural value is determined by the cost of production and indicated the common ground on which could stand Malthus, Torrens, and others who had found difficulty in explaining the relation of profits to value.

A corollary of this doctrine of costs is the theory that interest is the payment made to capitalists to induce them to undergo the sacrifices of abstinence necessary to give efficiency to the labor and natural agents available for production, just as wages are the payments made to laborers to induce them to undergo the sacrifices essential to their rôle in production. As Senior put it in the passage quoted above (p. 26), abstinence "stands in the same relation to Profit as Labour does to Wages." In another place (p. 43) he speaks of "the wages and profits which must be paid to induce the producers to continue their exertions." In still another (pp. 56 and 57) he says, summarizing portions of a previous discussion, "we explained that labour cannot be efficient unless assisted by, what is the result of abstinence, capital; nor abstinence in itself efficient unless assisted by labour; that each is disagreeable and must therefore be called into exertion by the prospect of its specific remuneration; abstinence by the hope of profit, and labor by the hope of wages."

Unfortunately Senior did not further develop the line of thought suggested in these passages. When he came to the subject of distribution, he confined his discussion to the explanation of the "relative proportions of rent, profit and wages," developing a form of the wages-fund doctrine and making wages and profits mutually dependent. In this connection he makes no use of the sacrifices endured by either capitalists or laborers.

F. SENIOR'S DOCTRINE OF MONOPOLY

In applying his conception of costs to the explanation of value,

²⁹ *Op. cit.*, p. 101.

Senior classified economic goods into two groups according as they are produced "under *circumstances of equal competition*," or, in other words, where all persons can become producers, and that with equal advantage, or under *monopolistic conditions*. He further described "circumstances of equal competition" as those in which "no appropriated natural agent has concurred" and monopolistic conditions as those in which production has been "assisted by peculiar advantages of soil, or situation or by extraordinary talent of body or mind, or by processes generally unknown, or protected by law from imitation."⁸⁰

He subclassified monopolies into four groups, namely, (a) those "under which the monopolist has not the exclusive power of producing, but exclusive facilities as producer, which may be employed indefinitely with equal or increasing advantage"; (b) those "under which the monopolist is the only producer and cannot increase the amount of his produce"; (c) those "under which the monopolist is the only producer and can increase indefinitely, with equal or increasing advantage, the amount of his produce"; and (d) those "under which the monopolist is not the only producer, but has peculiar facilities which diminish and ultimately disappear as he increases the amount of his produce."⁸¹ As an example of the first group he used yarn produced by Sir R. Arkwright's "patent machinery"; of the second, Constantia wine, which is capable of being produced only on a few acres of land; of the third, Scott's *Waverley*; and of the fourth, "the great monopoly of the land."

According to Senior only goods produced under conditions of equal competition sell for their cost of production; "or, in other words, at a price equal to the sum of the labour and abstinence which [their] production requires; or to use a more familiar expression, at a price equal to the amount of the wages and profits which must be paid to induce the producers to continue their exertions."⁸² The prices of monopolized goods of the first three classes, he said, "are but little governed by any rules." Those of the first class "cannot rise above the cost of production when unassisted by the monopolized agent, but have a tendency to approach the cost of production to the monopolist"; those in the second and third classes "have no necessary limits, but approach much more nearly to the cost of production in the [third]

⁸⁰ *Ibid.*, pp. 102 and 103.

⁸¹ *Ibid.*, p. 111.

⁸² *Ibid.*, p. 102.

class, where the monopolist can increase his produce, than in the [second] class, where nature strictly limits the amount that can be produced"; and those in the fourth class have "a constant tendency to coincide with the cost of production of that portion which is continued to be produced at the greatest expense."³³

He differed with Ricardo regarding the relative size and importance of these classes of goods and consequently regarding the scope of the application of the cost-of-production principle. Ricardo seemed to think that most goods were produced under conditions in which "competition operates without restraint" and consequently under which the cost-of-production principle operates, while Senior considered the class of goods produced under conditions of equal competition to be relatively small.³⁴ To be sure, his fourth class, namely goods subject to "the great monopoly of the land," was the one Ricardo had chiefly in mind, and Senior admits that the cost principle has application here, but he probably assigned greater importance than did Ricardo to the other classes of monopolized goods to which the cost principle had little or no application.

G. THE WAGES-FUND DOCTRINE

It has already been noted in Chapters VII and IX that in the explanation of wages both Adam Smith and Ricardo made use of a demand-and-supply theory in which the former is considered as determined by a fund of wealth advanced or appropriated to the employment of labor and the latter by the number of laborers seeking employment.

According to Smith this fund of wealth consists in part of what he called *revenue* and in part of what he called *stock*, and it increases and decreases with the increase and decrease of national wealth. According to Ricardo, it consists of and fluctuates with capital.

According to Smith, the supply of labor tends to keep pace with the demand, lagging somewhat behind it in progressive countries and occasionally going beyond it in backward ones, while Ricardo, in accordance with the Malthusian doctrine of population, regarded it as regulated by the standard of life of the laboring class, which is determined by habit and custom. With Malthus he thought that, if the relation between the fund of wealth advanced to labor and the num-

³³ *Op. cit.*, pp. 114 and 115.

³⁴ *Ibid.*, p. 103.

ber of laborers seeking employment is such that the wages received enable laborers to consume more than they have been accustomed to enjoy, population will increase at such a rate as to bring wages down to the accustomed level; and that in the opposite case, that is, if demand and supply fix wages at a point so low that laborers cannot consume the accustomed amount, population will decline at such a rate as to bring wages back to that level. Ricardo admitted that in new countries and under exceptional conditions the wages fund might for a long time increase more rapidly than the number of laborers, but under normal conditions in old countries like England he believed that market wages tend to conform to the laborer's standard of life, fluctuating, to be sure, now above and now below it.

According to this view, the laborer's standard of life, or, as Ricardo called it, "natural wages," is the important thing to consider in the discussion of that part of the problem of distribution which concerns labor, the demand and supply or wages-fund theory playing a secondary rôle, since it is useful only in explaining fluctuations above and below the natural level. This being the case, Ricardo might have been expected to analyze and to discuss the conditions which affect and determine the standard of life of the laboring class, and especially to consider the relation to it of market wages, but beyond the assertion that habit and custom determine it he has little to say. Neither did the question whether the wages fund is for the time being fixed and predetermined by influences independent of the conditions or actions of the laboring classes occupy his attention. On this subject Adam Smith had little to say beyond the statement that the common wages of labor are determined by a contract between laborers and their employers and that each party attempts to influence this contract by combination, the employers usually being the more skilful bargainers and, on account of their relatively small numbers, combining more easily and efficiently.

In the editions of his *Political Economy* published during the period now under review, Malthus gave considerable attention to these neglected points in the theory of wages, with the strange result that he elevated the demand-and-supply doctrine, and the wages-fund form of it, to the place of primary importance in the explanation of wages. I call this result strange in the light of the fact that it was Malthus who in his essay on population laid the foundations for the standard-of-life theory, to which he now accorded a secondary rôle in the ex-

planation of wages—secondary in the sense that he held that the standard of life of the laboring classes is profoundly influenced, if not chiefly determined, by their wages instead of vice versa.

Like Ricardo, Malthus distinguished the "natural price of labour" from its market price, but he differed from Ricardo in his definition of the former. Speaking of Ricardo's definition as "that price which is necessary to enable the labourers one with another to subsist, and to perpetuate their race, without either increase or diminution," he says: ³⁵ "This price I should really be disposed to call a most unnatural price; because in a natural state of things, that is, without unnatural impediments to the progress of accumulation, such a price could not permanently occur in any country, till the cultivation of the soil, or the power of importation, had been pushed as far as possible." As a substitute he offers the following definition: "The natural or necessary price of labour in any country I should define to be that price which, in the actual circumstances of the society, is necessary to occasion an average supply of labourers, sufficient to meet the effectual demand. And the market price I should define to be, the actual price in the market which from temporary causes is sometimes above, and sometimes below, what is necessary to supply this demand."

In his further discussion he does not clearly indicate when he is referring to natural and when to market wages, but he seems to mean the former when he says ³⁶:

"The condition of the labouring classes of society must evidently depend, partly upon the rate at which the funds for the maintenance of labour and the demand of labour are increasing; and partly, on the habits of the people in respect to their food, clothing, and lodging.

"If the habits of the people were to remain fixed, the power of marrying early, and of supporting a large family, would depend upon the rate at which funds for the maintenance of labour and the demand for labour were increasing. And if these funds were to remain fixed, the comforts of the lower classes of society would depend upon their habits, or the amount of those necessities and conveniences, without which they would not consent to keep up their numbers to the required point.

"It rarely happens, however, that either of them remains fixed for any great length of time together. The rate at which the funds for the maintenance of labour increase, is, we well know, liable, under varying circumstances, to great variation; and the habits of the people, though not so

³⁵ *Op. cit.*, pp. 223 and 224.

³⁶ *Ibid.*, pp. 224 and 225.

liable, or so necessarily subject to change, can scarcely ever be considered as permanent. *In general their tendency is to change together. When the funds for the maintenance of labour are rapidly increasing, and the labourer commands a large portion of necessities, it is to be expected that if he has the opportunity of exchanging his superfluous food for conveniences and comforts, he will acquire a taste for these conveniences and his habits will be formed accordingly. On the other hand, it generally happens that, when the funds for the maintenance of labour become nearly stationary, such habits, if they ever have existed, are found to give way; and, before the population comes to a stop, the standard of comfort is essentially lowered*" (italics mine).

The italicized portion of this passage clearly indicates that in Malthus's opinion the wage received as a result of the operation of the demand and supply of labor is a determining factor in the laborer's standard of life. That he thought other factors also enter in is indicated by the following passage³⁷:

"From high real wages, or the power of commanding a large portion of the necessities of life, two very different results may follow; one, that of a rapid increase of population, in which case the high wages are chiefly spent in the maintenance of large and frequent families; and the other, that of a decided improvement in the modes of subsistence, and the conveniences and comforts enjoyed, without a proportionate acceleration in the rate of increase.

"In looking to these different results, the causes of them will evidently appear to be the different habits existing among the people of different countries and at different times. In an inquiry into the causes of these different habits, we shall generally be able to trace those which, in old countries, produce the first result, to all the circumstances which contribute to depress the lower classes of the people, which make them unable or unwilling to reason from the past to the future, and ready to acquiesce, for the sake of present gratification, in a very low standard of comfort and respectability; and those which produce the second result, to all the circumstances which tend to elevate the character of the lower classes of society, which make them act as beings who look before and after, and who consequently cannot acquiesce patiently in the thought of depriving themselves and their children of the means of being respectable, virtuous and happy.

"Among the circumstances which contribute to the character first described, the most efficient will be found to be despotism, oppression, and ignorance: among those which contribute to the latter character, civil and political liberty, and education."

³⁷ *Ibid.*, p. 226.

Regarding the influence and composition of the wages fund Malthus writes as follows³⁸: "What is essentially necessary to a rapid increase of population is a great and continued demand for labor; and this is proportioned to the rate of increase in the quantity and value of those funds, whether arising from capital or revenue which are actually employed in the maintenance of labour."

"It has been generally considered, that the demand for labour is proportioned to the circulating, not to the fixed capital of a country. But in reality the demand for labour is not *proportioned* to the increase of capital in any shape; nor even, as I once thought, to the increase of the exchangeable value of the whole annual produce. It is proportioned only, as above stated, to the rate of increase in the quantity and value of those funds which are actually employed in the maintenance of labour."

Upon the underlying, determining causes of "the quantity and value" of these funds Malthus throws little or no light; neither does he indicate except by implication to what extent he considers them predetermined and beyond the influence and control of the laboring class itself.

In his *Elements of Political Economy*, first published in 1821, James Mill relied entirely upon the wages-fund doctrine for the explanation of wages. "Universally, then, we may affirm," he says,³⁹ "that, other things remaining the same, if the ratio which capital and population bear to one another remains the same, wages will remain the same; if the ratio which capital bears to population increases, wages will rise; if the ratio which population bears to capital increases, wages will fall."

In his further discussion he concludes that population has a natural tendency to increase faster than capital, that the employment of forcible means to make capital increase faster than its natural tendency would not produce desirable effects, and, therefore, that the only hope of the masses lies in the control of their numbers; and to this end he suggested "the progress of legislation, the improvement in the education of the people and the decay of superstition."⁴⁰

Probably the most rigid and unqualified statement of the wages-fund doctrine anywhere to be found was made by J. R. McCulloch

³⁸ *Op. cit.*, p. 234.

³⁹ *Op. cit.*, p. 44.

⁴⁰ *Ibid.*, p. 59.

in the various editions of his *Principles of Political Economy*.⁴¹ The essential features of his statement of the doctrine are indicated in the following quotations ⁴²:

"The capacity of a country to support and employ labourers is not measured by advantageousness of situation, richness of soil, or extent of territory. These undoubtedly, are circumstances of very great importance, and have a powerful influence over the rate at which a people advances, or may advance, in refinement and civilization. But it is not on them, but on the amount of its capital applicable to the employment of labour, and on the disposition of the owners of capital so to apply it, that the capacity of a country to support work-people at any given period, and the amount of their wages, wholly depends. A fertile soil may be made to add rapidly to the means of subsistence; but that is all. Before it can be cultivated, capital must be provided for the support of the labourers employed upon it, as it must be provided for the support of those engaged in manufacturing, or other departments of industry."

"It is further evident, that the quantity of produce apportioned to each labourer, or his wages rated in commodities, is determined by the ratio which the capital of the country bears to its labouring population. When, on the one hand, capital is increased without an equivalent increase of population, the portions of it that go to individuals, or their wages, are necessarily augmented; and when, on the other hand, population happens to increase more rapidly than capital, the latter having to be distributed among a greater number of persons, their wages or shares are proportionately reduced."

"A capitalist cannot increase his own stock without, at the same time, and to the same extent, increasing the wealth or the means of subsistence, of the working classes."

"All the capital is sure, through the higgling of the market, to be equitably divided among all the labourers; and with every increase of the former, as compared with the latter, wages will necessarily rise."

"It [the price of labor] depends on the number of labourers seeking employment, compared with the capital or fund which is to pay their wages, and is independent alike of the schemes and combinations of the buyers and those of the sellers."

"No proposition can be better established than that the rate of wages, at any given moment, is determined by the proportion between capital and population."

⁴¹ The first edition, which was a reprint of an article contributed to the Supplement of the *Encyclopædia Britannica*, appeared in 1825. The fifth edition, from which we quote, was published in 1864.

⁴² *Ibid.*, pp. 316, 318, 319, 320, and 326.

The rôle which McCulloch assigned to the standard of life of the laboring classes was that of setting a limit below which wages could not permanently fall rather than that of determining the point around which market wages fluctuate. "The race of labourers," he said,⁴³ "would become extinct were they not supplied with the food and other articles sufficient, at least, for their support and that of their families. This is the lowest limit to which the rate of wages can be permanently reduced; and for this reason it has been called *the natural or necessary rate of wages*. The market, or actual rate of wages, may sink to the level of this rate; but it cannot continue permanently below it." He subsequently removed the implication in the above passage that the natural or necessary rate of wages is the minimum of subsistence by the statement that it is "such a supply of food and other accommodations as the custom of the country requires for the decent support of ordinary labourers,"⁴⁴ but he does not thereby modify the scope of the standard-of-life doctrine in the determination of wages.

Senior's discussion of this subject is characterized by the same analytical skill and penetration exhibited in his treatment of other topics. He held rigidly to the wages-fund doctrine but explained it in such a manner as to render it less open to criticism than the customary statement. In the first place he called it the "*proximate cause deciding the rate of wages*," by which he distinguished it from the more fundamental influences which on the one hand determine the size and character of the wages fund and on the other the number of laborers. He then proceeded to expose the fallacies in seven opinions which he considered inconsistent with it, among these being "*the doctrine that the Rate of Wages depends solely on the proportion which the number of labourers bears to the amount of the Capital in a Country*" and "*the doctrine, that wages depend on the proportion borne by the number of Labourers to the whole revenue of the Society of which they are members*." Referring to the first doctrine, he said that he knew of no definition of the term *capital* "which will not include many things that are not used by the labouring classes; and, if our proposition be correct, no increase or diminution of *these* things can *directly* affect wages"; and to the second, that "it is possible, indeed, to state cases in which the revenue of a large portion of a community might be increased, and yet the wages of the labourers might fall without an increase of their numbers."⁴⁵

⁴³ *Op. cit.*, p. 324.

⁴⁴ *Ibid.*, p. 330

⁴⁵ *Political Economy*, pp. 153 and 154

Unfortunately, in his statement of the precise composition of the wages fund and of the influences which determine it, Senior did not get much, if any, beyond the self-evident proposition that it depends "on the quantity and quality of the commodities directly or indirectly appropriated during the year to the use of the labouring population" and that this "quantity and quality" in turn depends "in the first place, on the productiveness of labour in the direct or indirect production of the commodities used by the labourer, and, in the second place, on the number of persons directly or indirectly employed in the production of things for the use of labourers, compared with the whole number of labouring families."⁴⁶ He did not extend his exposition to the point of indicating the fundamental influences or forces which determine the quantity and quality of each commodity or variety of commodities produced and consequently the number of laborers engaged in the production of commodities for the use of laborers as compared to that engaged in the production of commodities for capitalists, landlords, and other classes.

H. THE USE THEORY OF INTEREST

A variation from, and offshoot of, the productivity theory of interest has been named the use theory,⁴⁷ its exponents distinguishing between the sale of the *use* of capital and of its *substance*, and identifying the value of the former with interest. Say's use of the conception *productive services* of capital was so loose that it is difficult, and perhaps impossible, to determine whether he intended to distinguish between them and the consumption of the substance of the capital itself, and accordingly Bohm-Bawerk classified him among the use as well as the productivity theorists. The principal exponents of this theory, however, were Germans⁴⁸ who differentiated between the uses and the substance of capital. In the case of durable goods the making of this distinction is a simple and easy matter. A horse, for example, may be sold outright or its services may be sold separately, as is the case when a liveryman lets it for hire. The same distinction is made every day in the case of a large number of durable goods. It is not so easy to make the distinction, however, in the case of perishable goods or of those capable only of a single use. What, for example, is the distinction between the use of the pig-

⁴⁶ *Ibid.*, p. 174.

⁴⁷ See Eugene v. Bohm-Bawerk, *Capital and Interest*, translated with preface and analysis by William Smart (London: Macmillan & Co., Ltd., 1890), Bk. III.

⁴⁸ Nchimus, Carl Marlo, Hermann.

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iron used in the manufacture of steel and the consumption of the pig-iron itself? Hermann attempted to point out this distinction in the following manner ⁴⁰:

"Technical processes are able,' throughout all the change and combination of the usefulness of goods, to preserve the sum of their exchange values undiminished, so that goods, although successively taking on new shapes, still continue unchanged in value. Iron ore, coal, labor, obtain. in the form of pig-iron, a combined usefulness to which they all three contribute chemical and mechanical elements. If, then, the pig-iron possesses the exchange value of the three exchange goods employed, the earlier sum of goods persists, bound up qualitatively in the new usefulness, added together quantitatively in the exchange value.

"To goods that are of transitory material, technical processes, through this change of form, add economical durability and permanence. This persistence of usefulness and of exchange value which is given to goods otherwise transitory by technical change of form, is of the greatest economical importance. The amount of durable, useful goods becomes thereby very much greater. Even goods of perishable material and of only temporary use, by constantly changing their shapes while retaining their exchange value, become recreated so that their use becomes lasting. Thus, as it is in the case of durable goods, so it is in the case of goods changing their form qualitatively, while retaining their exchange value; this use may be conceived of as a good in itself, as a use [*Nutzung*] which may itself obtain exchange value.'"

Being economic goods, these uses of capital have exchange value, are actually bought and sold on the market, and the proceeds constitute the income which accrues to the owners of capital, or interest; so runs Hermann's argument.

⁴⁰ Quoted by Böhm-Bawerk, *op. cit.*, p. 195.

CHAPTER XI

JOHN STUART MILL

John Stuart Mill occupies a unique place in the development of the Classical Political Economy of England. His work marked the end of one period and the beginning of another, and his familiarity with political science, history, and philosophy gave him a breadth of view and a capacity to see the connection between theory and practice possessed by no other member of the school except Adam Smith. He described in the following words the goal he placed before himself in writing his treatise on political economy:

"It appears to the present writer, that a work similar in its object and general conception to that of Adam Smith, but adapted to the more extended knowledge and improved ideas of the present age, is the kind of contribution which Political Economy at present requires. *The Wealth of Nations* is in many parts obsolete, and in all, imperfect. Political Economy, properly so-called, has grown up almost from infancy since the time of Adam Smith; and the philosophy of society, from which practically that eminent thinker never separated his more peculiar theme, though still in a very early stage of its progress, has advanced many steps beyond the point at which he left it. No attempt, however, has yet been made to combine his practical mode of treating his subject with the increased knowledge since acquired of its theory, or to exhibit the economical phenomena of society in the relation in which they stand to the best social ideas of the present time, as he did, with such admirable success, in reference to the philosophy of his century."

"Such is the idea which the writer of the present work has kept before him."

These words were published in 1848 in the preface to the first edition of his *Principles of Political Economy with Some of Their Applications to Social Philosophy*. The degree of success he achieved in the performance of this task will appear in the course of this chapter. It is sufficient at this point to say that it was such as to give his treatise the distinction of making the end of one epoch in the development

of the science and the beginning of another. His *Principles* was pre-eminently a transitional work summing up and expounding what had been done before and opening the way for the new developments of the future. We shall first attempt to describe Mill's preparation and qualifications for the task he undertook.

A. MILL'S PREPARATION AND QUALIFICATIONS FOR HIS WORK

He was the son of James Mill, who during the greater part of his life was a valued and trusted servant and the historian of the East India Company, and an economist of some distinction. During the first seventeen years of his life (1806-1823), John Stuart, who was a very precocious youth and unusually equipped by nature with intellectual capacity and the qualities essential to the development of excellence and strength of character, was put by his father through a course of study and training which made him a very keen and efficient thinker, familiarized him with the existing state of the most important branches of knowledge and with the political and social movements of his time, and created in him the desire and the decision to devote his life to the advancement of knowledge and the improvement of social conditions.

In 1823 he entered India House as a junior clerk, and he remained in the service of the East India Company until its dissolution in 1857. While he earned his living in this occupation and served this company so ably and so well that he was entrusted with its defense at the end, he continually studied, wrote for publication, and spent a large amount of time and energy in public service. Indeed his chief concern was his researches, his writing, and his public work rather than the occupation by which he earned his living.

Mill supplemented, corrected, and enriched the knowledge obtained from the wide reading of books by personal contact with most of the prominent Englishmen of his time and with many distinguished foreigners. These contacts began in his boyhood at his father's house, which was frequented by public and scientific men, and were continued throughout his life. He was especially intimate with Jeremy Bentham, the utilitarian philosopher, being for a time a member of his household, and he knew Ricardo well, having frequently met him at his father's house. He also knew intimately Frederick Maurice, John Sterling, Carlyle, and Austin, the noted writer on jurisprudence. In his young manhood he was a member of debating societies and other clubs frequented by men whose views on political, social, and

scientific matters were very different from his own, including members of Parliament and other public servants. At different periods of his life he spent considerable time in France, and he was a close and discriminating student of French literature, politics, and society.

The results of his activities along scientific and literary lines were distinguished in the fields of philosophy, political science, and economics. They were given to the public chiefly in the form of books and articles in periodicals. For a short time he was a member of Parliament, and he occasionally made public addresses. His principal writings published in book form were the following:

In 1831, *Essays on Unsettled Questions in Political Economy* (not published till 1844); 1842, *System of Logic*; 1848, *Principles of Political Economy with Some of Their Applications to Social Philosophy*; 1859, *Liberty and Thoughts on Parliamentary Reform*; 1861, *Representative Government*; 1863, *Utilitarianism*; 1864, *Comte and Positivism*; 1865, *Examination of Sir Wm. Hamilton's Philosophy*; and 1869, *Subjection of Women*. After his death in 1873 there were published from manuscripts he left three more works: the *Autobiography* in 1873; *Three Essays on Religion* in 1874, and *Chapters on Socialism* in 1879.

A selection of his most important magazine articles, published under the title *Dissertations and Discussions*, fill five good-sized volumes. Those which still remain buried in the files of the *Westminster Review*, the *London and Westminster*, the *Edinburgh*, the *Quarterly*, the *Monthly Repository*, *Tait's Magazine*, the *Traveller*, the *Chronicle*, the *Examiner*, and other newspapers and periodicals would fill as many more.

Few writers on political economy have had so comprehensive a knowledge of cognate fields of thought or more intimate contacts with the political, social, and economic life of their times, and few have been better endowed intellectually or have approached the subject with greater objectiveness or a stronger desire to find and reveal the truth.

Mill's training in economics began at an early age when at his father's fireside he used to listen to discussions between Ricardo and others and when in his daily walks with his father those discussions, and the writings of Adam Smith, Ricardo, and the other economists, were reviewed and the boy was required to answer penetrating questions concerning them. James Mill's *Political Economy* was worked out in the course of these discussions between father and son, and the

bulk of the work involved in its writing and publication done by the boy. He thus absorbed the theories of Ricardo and the ideas of Adam Smith, Malthus, and others at an age when most children are in the nursery, and they formed the background of his thinking on political, social, and economic matters at the very beginning of his career. Later new light came to him from many sources, including his own researches and incisive thinking, and modified many of his earlier views. His matured thought on the subject was presented in nearly complete form in his book on political economy, later publications indicating some, but with possibly one exception, non-essential modifications.

B. ORGANIZATION OF THE SUBJECT-MATTER OF MILL'S "PRINCIPLES"

Some indication of the change in the science of economics in the period between Adam Smith and Mill is revealed by a comparison of the chief subdivisions of their respective treatises. In both there were five. Those of *The Wealth of Nations* were: (1) "Of the Causes of Improvement in the Productive Powers of Labor, and of the Order According to Which Its Produce Is Naturally Distributed among the Different Ranks of the People"; (2) "Of the Nature, Accumulation, and Employment of Stock"; (3) "Of the Different Progress of Opulence in Different Nations"; (4) "Of Systems of Political Economy"; and (5) "Of the Revenue of the Sovereign or Commonwealth." Those of Mill's *Principles* were: (1) "Production," (2) "Distribution," (3) "Exchange," (4) "Influence of the Progress of Society on Production and Distribution," and (5) "On the Influence of Government." The greater prominence of the subject of distribution in Mill's treatise and the emergence of production and exchange and the effect of the progress of society on production and distribution as main subdivisions are obvious. A comparison of the topics treated under each of these main subdivisions would indicate even more clearly the emergence of new subjects of interest and changes in emphasis and points of view.

For few if any of these changes was Mill himself responsible. Production, distribution, interchange, and consumption were the subdivisions employed by his father in the book in the production of which John Stuart collaborated, and Say had divided his *Traité* into three books entitled respectively "De la production des richesses," "De la distribution des richesses," and "De la consommation des richesses." Turgot entitled his book *Réflexions sur la formation et la distribution des richesses*. With the exception of advancing to the dignity of a main subdivision the topic of the effect of progress on the production and

the distribution of wealth, Mill thus followed the arrangement of subject-matter which had become traditional, but this exception is characteristic and indicates the importance he assigned to the dynamic aspects of the subject and to the application of its principles to what he called social philosophy.

The range of topics included under the five main subdivisions of his book was much wider than that of any previous writer and much more completely covered the various aspects of the subject. His grasp of the field was comprehensive, and his analysis of it logical and complete. He discovered and filled in many gaps which the loose and faulty analysis of his predecessors had not disclosed, or, if disclosed, had neglected. From the points of view of comprehensiveness, completeness, and excellence of organization of contents Mill's book far surpassed those of the other masters of the science from Adam Smith on. His framework was large enough to include all that his predecessors had done and such additions as he was prepared to make.

C. PRODUCTION

Under this head Mill discussed three main topics: "the requisites of production"—natural agents, labor, and capital; "the degree of productiveness of the productive agents"; and the "laws" of the increase of labor, capital and "production from land."

In describing the parts played in production by natural agents and labor respectively, he said¹ that the former supplies "powers" as well as "materials" and that these "or in other words the properties of matter . . . do all the work, when once objects are put into the right position. This one operation of putting things into fit places for being acted upon by their own internal forces, and by those residing in other natural objects, is all that man does, or can do, with matter. He only moves one thing to or from another." Regarding the question "whether nature gives more assistance to labour in one kind of industry or in another," which played so important a rôle in the reasoning of the Physiocrats and a no inconsiderable one in that of Adam Smith, he said: ² "It is impossible to decide that in any one thing nature does more than in another. One cannot say that labour does less. Less labour may be required; but if that which is required is absolutely indispensable, the result is just as much the product of labour, as of

¹ So many editions and reprints of Mill's *Principles* are in use that it has been thought best not to attempt page references. Instead, references are to books, chapters, and subdivisions of chapters. See Book I, Ch. I, secs. 1 and 2.

² Book I, Ch. I, sec. 3.

nature. When two conditions are equally necessary for producing the effect at all, it is unmeaning to say that so much of it is produced by one and so much by the other." In another connection³ he followed Say in describing the function of labor as that of creating "utilities," and he groups these into three classes according as they are "fixed and embodied in outward objects," "in human beings," or "not fixed or embodied in any object, but consisting in a mere service rendered; a pleasure given, an inconvenience or a pain averted, during a larger or a shorter time but without leaving a permanent acquisition in the improved qualities of any person or thing."

He devoted a chapter to a description of the various ways in which labor operates in production, classifying them under the heads: "Labour employed either directly about the things produced, or in operations preparatory to its production"; "Labour employed in producing subsistence for subsequent labour," in producing materials and implements; "in the protection of labour"; "in the transport and distribution of the produce"; "labour which relates to human beings"; and "labour of invention and discovery." The traditional and popular classification of productive operations into agricultural, manufacturing, and commercial he considered unscientific and of little service in economic analysis. "It fulfills," he said, "very badly the purposes of a classification" partly because "many great branches of productive industry find no place in it, or not without much straining" and partly because "the limit between agricultural and manufacturing industry cannot be precisely drawn."

He retained the traditional distinction between productive and unproductive labor but made the former class considerably more inclusive than did Adam Smith by classifying under it not only "those kinds of exertion which produce utilities embodied in material objects" as their "*direct result*" but those that have "an increase of material products" as their "*ultimate consequence*." Unproductive labor he defined as that "which does not terminate in the creation of material wealth; which, however largely or successfully practised, does not render the community, and the world at large, richer in material products, but poorer by all that is consumed by the labourers while so employed."⁴

He also carried the distinction between productive and unproductive over into the field of consumption by declaring that only produc-

³ Book I, Ch. III, secs. 1 and 2.

⁴ *Ibid.*, secs. 3 and 4.

tive laborers—including among these “the labour of direction . . . as well as that of execution”—are productive consumers, and adding that “the consumption even of productive labourers is not all of it productive consumption” but only that part consumed “in keeping up or improving their health, strength, and capacities of work, or in rearing other productive labourers to succeed them.”⁵

The classification of natural agents into those that are practically unlimited and those that are limited in amount he considered of primary importance.

Mill followed most of his predecessors in defining capital as that portion of the wealth or accumulated stock of a nation that is devoted to production. Since the same articles may be productively or unproductively consumed, “the distinction between Capital and Non-capital,” he said, “does not lie in the kind of commodities, but in the mind of the capitalist—in his will to employ them for one purpose rather than another.”⁶

While all the wealth of a country devoted to production is capital, according to Mill, the converse statement that all the capital of a country is devoted to production needs limitation and explanation, because accumulated wealth devoted to production may be temporarily unemployed; or more may be used in a productive enterprise than is strictly necessary, as, for example, when a farmer pays rent for two or three quarters before he gets any returns, or more “is paid to laborers than is “strictly and indispensably necessary for production.”

Like Adam Smith he also held that not all of the wealth from which individuals derive an income is capital from the point of view of the nation. “That which is virtually capital to the individual,” he said,⁷ “is or is not capital to the nation, according as the fund which by the supposition he has not dissipated, has or has not been dissipated by somebody else.”

Regarding the function of capital in production he used the following words⁸: “What capital does for production is to afford the shelter, protection, tools and materials which the work requires, and to feed and otherwise maintain the labourers during the process.” This statement meant to Mill very nearly, apparently precisely, the same thing that the phrase “setting labor in motion” meant to Adam Smith. It did not mean that capital has “productive powers” in the sense that

⁵ *Ibid.*

⁶ Book I, Ch. IV, sec. 1.

⁷ *Ibid.*, sec. 3.

⁸ *Ibid.*, sec. 1.

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labor and natural agents have: "The only productive powers," said Mill,⁹ "are those of labour and natural agents; or if any portion of capital can by a stretch of language be said to have a productive power of its own, it is only tools and machinery, which, like wind or water, may be said to coöperate with labour."

He laid down four propositions concerning capital which he regarded as fundamental, namely, "that industry is limited by capital"; that "it is the result of saving"; that "it is nevertheless consumed"; and that "demand for commodities is not a demand for labour." By way of explanation, the first proposition is stated in other forms, as, for example, that "there can be no more industry than is supplied with materials to work up and food to eat"; "of what has been produced, a part only is allotted to the support of productive labour; and there will and cannot be more of that labour than the portion so allotted (which is the capital of the country) can feed, and provide with the materials and instruments of production."

In discussing this proposition Mill emphasized not only the limitation on productive enterprise imposed by the volume of capital but also his belief that industry may be increased, practically without limit, provided capital continues to increase. "Every increase of capital," he said,¹⁰ "gives, or is capable of giving, additional employment to industry; and this without assignable limit." With this proposition he combated the popular notion that the unproductive expenditures of the rich were necessary for the prevention of unemployment and beneficial to the laboring classes. His argument is that, if the laborers unproductively employed by these expenditures were productively employed, the goods they would produce would constitute an addition to the wages fund of the nation and would ultimately support an addition to the population stimulated by this increase in wages or raise the standard of life of the laboring class.¹¹

In the second and third propositions, which at first glance appear to be contradictory, Mill wished to emphasize on the one hand the fact that capital is the result of spending on "personal indulgences" less than one produces or receives in the form of income from others and on the other that such savings constitute capital only when they are employed or consumed in the production of other goods. As he uses the term, saving does not necessarily imply privation. It is even

⁹ Book I, Ch. V, sec. 1.

¹⁰ *Ibid.*, sec. 3.

¹¹ *Ibid.*

consistent with ample and increasing consumption. It does imply abstinence in the sense of refraining from expenditure upon immediate indulgence and the use of income in production either by oneself or by others.

The essence of Mill's fourth proposition is identical with that of his first. It is merely another form of emphasizing his conception of the relation of capital to wages and to the total volume of production. "What supports and employs productive labour," he said,¹² "is the capital expended in setting it to work, and not the demand of purchasers for the produce of the labour when completed. Demand for commodities is not demand for labour. The demand for commodities determines in what particular branch of production the labour and capital shall be employed; it determines the direction of the labour, but not the more or less of the labour itself or of the maintenance or payment of the labour." In the course of his discussion he suggested the possibility that the demand for a commodity may be great enough to stimulate the employment in production, of wealth that would otherwise have been unproductively employed, but his contention is that it is only the new capital thus created that can set additional amounts of labor in motion.

Mill's analysis of the influences which affect the productiveness of the productive agents is much more complete and his discussion of them much more comprehensive than is the case in the works of his predecessors. He classifies them under the heads "natural advantages"; "the energy, skill and knowledge of labour"; the degree of "intelligence and trustworthiness" and the degree of security "in the community generally"; the "coöperation, or the combination of labour"; and the scale, large or small, on which production is carried on.

Under the head "coöperation, or the combination of labour," he included division of labor as a subtopic. In the treatment of the other aspects of this subject he quoted extensively from Edward G. Wakefield's comments, in his edition of *The Wealth of Nations*, on Adam Smith's discussion. Wakefield distinguished between "simple" and "complex" coöperation, the former exemplified by two or more men helping each other at the same job and the latter by the separation of employments and the exchange of surpluses. These forms of coöperation, especially the latter, preceded in order of time the "breaking down more and more of every process of industry into parts, so that each labourer shall confine himself to an ever smaller number of simple

¹² *Ibid.*, sec. 9.

operations," which is ordinarily termed division of labor, and are shown to be essential to the advance of civilization beyond the "first rudiments." In expounding their advantages Mill pointed out the interdependence of city and country and the importance of towns and town occupations in the development of the agriculture of a country and in the growth of the prosperity and happiness of the rural population.

In his chapter entitled "Of Production on a Large, and Production on a Small Scale" Mill pointed out the economies of large-scale production in manufacturing, quoting extensively from Babbage's *Economy of Machinery and Manufactures*, the standard work on that subject in his day; discussed the advantages and disadvantages of the "joint-stock principle"; and devoted several pages to a consideration of the advantages, from the point of view of production, of small-scale over large-scale operations in agriculture. On this latter topic he reviewed the arguments pro and con, concluding, however, that the balance is strongly in favor of the small farm cultivated by the proprietor and his family.

The last major topic treated by Mill under the head "production," is "the law of the increase of production, viewed in respect of its dependence, first on Labour, secondly on Capital, and lastly on Land," or, as he described it in another place, "the law of this increase in production; the conditions to which it is subject; whether it has practically any limits, and what those are."

So far as labor is concerned, he accepted the Malthusian doctrine as a correct statement of the law of its increase, devoting his chapter on that subject chiefly to a discussion of the strength of what Malthus called the prudential check in different periods and especially in the Europe of his day. His conclusion is thus stated¹³: "On the side of labour there is no obstacle to an increase of production, indefinite in extent and of unslackening rapidity. As population has the power of increasing in an uniform and geometrical ratio. If the only essential condition of production be labour, the produce might and naturally would, increase in the same ratio; and there would be no limit until the numbers of the kind were brought to a stand from actual want of space."

"The increase of capital," he said,¹⁴ "must depend upon two things—the amount of the fund from which saving can be made, and the strength of the dispositions which prompt to it.

¹³ Book I, Ch. XI, sec. 1.

¹⁴ *Ibid.*

"The fund from which saving can be made, is the surplus of the produce of labour, after supplying the necessities of life to all concerned in the production: (including those employed in replacing the materials, and keeping the fixed capital in repair)." This he called "the real net produce of the country, . . . the fund from which the enjoyments as distinguished from the necessities of the producers, are provided, . . . from which all are subsisted, who are not themselves engaged in production; and from which all additions are made to capital."

The amount of this net product, while it sets the limit to the amount that *can be* saved, according to Mill, is also a factor in determining "how much *will* be saved," since the amount of profit that can be made from the employment of capital bears "some proportion, though not a uniform one" to it, and "the greater the profit that can be made from capital, the stronger the motive to its accumulation."¹⁵

"With the same pecuniary inducement," however, Mill showed that the amount of saving will depend upon what he called "the effective desire of accumulation," which in turn depends primarily upon the willingness and expediency of making present sacrifices "for the sake of future good." Into the determination of these enter many factors, intellectual, moral, and social. Mill pointed out some of these, and for a more complete discussion commended Rae's *New Principles of Political Economy*.¹⁶

Mill was impressed by the differences in this "effective desire for accumulation" in different persons and different communities and by its importance in the determination of the "state of general civilization." It is generally weak in primitive peoples, like the North American Indians, he thought, and tends to grow stronger with advancing civilization. He thought it had reached an intermediate degree of strength in China and was highest in the most prosperous countries of Europe.

In the following statement he expressed his conclusion regarding the relation between rate of return, effective desire of accumulation, and increase of capital: "When a country has carried production as far as in the existing state of knowledge it can be carried with an amount of return corresponding to the average strength of the effective desire of accumulation in that country, it has reached what is called the stationary state; the state in which no further addition will be made to

¹⁵ *Ibid*

¹⁶ *Ibid.*, sec. 2.

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capital unless there takes place either some improvement in the arts of production, or an increase in the strength of the desire to accumulate." ¹⁷

Another check to the increase of production, and according to Mill the most important one, is the law of diminishing returns in agriculture. He declared this to be "the most important proposition in political economy." "Were the law different," he said,¹⁸ "nearly all the phenomena of the production and distribution of wealth would be other than they are." He affirmed, however, that "the progress of civilization" is in "habitual antagonism" to it. By this he meant that "the progress of agricultural knowledge, skill and invention," "manufacturing improvements," "improvement in education," and improvement "in government and almost every kind of moral and social advancement" may for a time suspend the operation of this law or counteract its effect by increasing the productivity of labor in other directions as much or more than it is diminished in this.

From the laws of the increase of production as he expounded them, Mill drew the conclusion that in the most advanced countries restraints upon the increase of population are indispensable. "In countries where the principle of accumulation is weak as it is in the various nations of Asia," the desideratum "is an increase of industry, and of the effective desire for accumulation"; but in other countries, "and England is at the head of them, in which neither the spirit of industry nor the effective desire for accumulation need any encouragement . . . there would never be any deficiency of capital, if its increase were never checked or brought to a stand by too great a diminution of its returns" caused by diminishing returns in agriculture, which in turn follows too rapid an increase in population. In spite of the power of improvement in civilization "during a certain space of time to keep up with, or even surpass, the actual increase of population, it assuredly never comes up," he said,¹⁹ "to the rate of increase of which population is capable; and nothing could have prevented a general deterioration in the condition of the human race, were it not that population has in fact been restrained."

In the history of countries like England he thought the growth of numbers had at times outstripped the progress of improvement and vice versa. When the former condition obtains, the only expedients

¹⁷ Book I, Ch. XI, sec. 3.

¹⁸ Book I, Ch. XII, sec. 2.

¹⁹ Book I, Ch. XIII, sec. 2.

are importation of food from abroad and emigration, but in the long run, if general deterioration is to be prevented, population must be kept within the limits set by the progress of improvement.

D. DISTRIBUTION

Mill opened his discussion of this subject by drawing a distinction, which he regarded as fundamental, between the laws of production and those of distribution. "The former," he said,²⁰ "partake of the character of physical truths. . . . There is nothing optional, or arbitrary in them. Whatever mankind produces, must be produced in the modes, and under the conditions, imposed by the constitution of external things, and by the inherent properties of their own bodily and mental structure." Distribution, on the other hand, "is a matter of human institution solely." It "depends on the laws and customs of society. The rules by which it is determined, are what the opinions and feelings of the ruling portion of the community make them, and are very different in different ages and countries; and might be still more different, if mankind so chose."

By this statement Mill did not mean that the distribution of wealth is arbitrary and not subject to laws, but merely that its laws may be changed by human action. Once rules and regulations for the distribution of wealth are established, their consequences "are as little arbitrary, and have as much the character of physical laws, as the laws of production. Human beings can control their own acts, but not the consequences of their acts either to themselves or to others. Society can subject the distribution of wealth to whatever rules it thinks best; but what practical results will flow from the operation of those rules, must be discovered, like any other physical or mental truths, by observation and reasoning."²¹

Among the rules and regulations established by society, the consequences of which in the distribution of wealth are most important, the institution of private property ranks very high, perhaps at the top of the list. Most of the plans looking toward a radical modification of present methods of distribution are based upon a criticism of this institution and involve its abolition or radical modification. Mill, therefore, devoted two chapters to the consideration of it and of communistic and socialistic schemes.

"When limited to its essential elements," he said, "the institution of

²⁰ Book II, Ch. I, sec. I.

²¹ *Ibid.*

property consists in the recognition, in each person, of a right to the exclusive disposal of what he or she have produced by their own exertions, or received either by gift or by fair agreement without force or fraud, from those who produced it." It includes "the right of bequest, or gift after death," but not "the right of inheritance." As it actually exists and has existed in the past, it has included or been accompanied by many elements which are not essential, however, and which have made its effect upon the distribution of wealth very different from what was necessary or desirable.²²

In comparing a régime of private property with "some system of common ownership and collective agency . . . as a question in social philosophy," Mill insisted that we should consider each régime "at its best" and not compare ideal communistic schemes with the régime of individual property as it is. On that basis he declared himself unable to come to a final decision. "We are too ignorant," he said,²³ "either of what individual agency in its best form, or Socialism in its best form, can accomplish, to be qualified to decide which of the two will be the ultimate form of human society. If a conjecture may be hazarded," he added, "the decision will probably depend mainly on one consideration, viz., which of the two systems is consistent with the greatest amount of human liberty and spontaneity. After the means of subsistence are assured, the next in strength of the personal wants of human beings is liberty; and (unlike the physical wants, which as civilization advances become more moderate and more amenable to control) it increases instead of diminishes in intensity, as the intelligence and the moral faculties are more developed."

Whatever may be "the ultimate form of human society," however, "the political economist, for a considerable time to come," he said,²⁴ "will be chiefly concerned with the conditions of existence and progress belonging to a society founded on private property and individual competition; and . . . the object to be principally aimed at in the present stage of human improvement, is not the subversion of the system of individual property, but the improvement of it, and the full participation of every member of the community in its benefits."

To this end—the improvement of the present system of private property—Mill examined the rights of bequest and inheritance, generally associated with it, and property in land. He advocated the lim-

²² Book II, Ch. II, secs. 1 and 3.

²³ Book II, Ch. I, sec. 3.

²⁴ *Ibid.*, sec. 4.

itation of inheritance to direct heirs and even the amount allowed them, and, while he held that the right of bequest is an essential feature of the right of private property, he believed in such limitation or regulation of its exercise as would prevent its "conflict with the permanent interests of the human race," as for example, its use in the form of the law of primogeniture or in that of prescribing the details of the use in perpetuity of property left for public purposes.

He held that the right of property in land rests upon a very different base from that of other forms of private property because "the raw material of the earth" has not been produced by labor and accumulated by abstinence. It rests upon the fact that "though land is not the produce of industry, most of its valuable qualities are. Labour is not only requisite for using, but almost equally so for fashioning the instrument."²⁵ He believed, however, that landed property in England was "very far from completely fulfilling the conditions which render its existence economically justifiable", that in Ireland these conditions were "not complied with at all"; and that in general "the claim of the landowners to the land is altogether subordinate to the general policy of the state," "the principle of property" giving them "no right to the land, but only a right to compensation for whatever portion of their interest in the land it may be the policy of the state to deprive them of. To that, their claim is indefeasible. It is due to landowners, and to owners of any property whatever, recognized as such by the state, that they should not be dispossessed of it without receiving its pecuniary value, or an annual income equal to what they derived from it."²⁶

Under the régime of private property, distribution is determined by the ownership of the requisites or factors of production. All of these may be owned by one party or class, or two of them may be so owned, or each one may be separately owned. In all cases except the first, a division of the joint product is necessary, and its rules depend upon the extent to which competition or custom operates. Mill pointed out the fact that until a comparatively recent period custom had been the determining factor in this division, and that in modern times competition is greatly modified by custom. He said ²⁷: "Political economists generally, and English political economists above others, have been accustomed to lay almost exclusive stress upon the first of these

²⁵ Book II, Ch. II, sec. 5.

²⁶ *Ibid.*, sec. 6.

²⁷ Book II, Ch. IV, sec. 1.

agencies [competition]; to exaggerate the effect of competition, and to take into little account the other and conflicting principle. They are apt to express themselves as if they thought that competition actually does, in all cases, whatever it can be shown to be the tendency of competition to do. This is partly intelligible, if we consider that only through the principle of competition has political economy any pretension to the character of a science. So far as rents, profits, wages, prices, are determined by competition, laws may be assigned for them. Assume competition to be their exclusive regulator and principles of broad generality and scientific precision may be laid down, according to which they will be regulated. The political economist deems this his proper business; and, as an abstract or hypothetical science, political economy cannot be required to do, and indeed cannot do, anything more. But it would be a great misconception of the actual course of human affairs to suppose that competition exercises in fact this unlimited sway." The forms of social economy in which all of the requisites of production are owned by one class and there is no division of the product are represented by the cultivation of land under the condition of slavery or of peasant proprietorship. Mill discussed both of these states of society, the latter at great length and with approval. He then discussed various forms of land tenancy which illustrate the division of the product into two shares, the laborer receiving one and the landlord the other. Where each requisite of production is owned by a different class, there is a threefold division of the product between laborers, capitalists, and landlords. To this state of society Mill devoted the remaining chapters of Book II.

In his discussion of wages he expounded and defended the so-called wages-fund doctrine, namely that wages "depend mainly upon the demand and supply of labour; or . . . on the proportion between population and capital." Limiting the term *population* to "the number only of the labouring class, or rather of those who work for hire," and capital to "circulating capital, and not even the whole of that, but the part which is expended in the direct purchase of labour," and adding to this "all funds which, without forming a part of capital, are paid in exchange for labour," he declared ²⁸ that "wages not only depend upon the relative amount of capital and population, but cannot under the rule of competition be affected by anything else."

He explained and harmonized with this doctrine the "common saying that wages are high when trade is good" and the "common no-

²⁸ Book II, Ch. XI, sec. 1.

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tion that high prices make high wages" and accepted only with considerable modification Ricardo's doctrine "that wages [meaning of course money wages] vary with the price of food." He admitted that changes in the price of food may react upon the supply of labor in the manner indicated by Ricardo. "This assumption," he said,²⁹ "contains sufficient truth to render it admissible for the purposes of abstract science; and the conclusion which Mr. Ricardo draws from it, namely, that wages in the long run rise and fall with the permanent rise of food, is, like almost all his conclusions, true hypothetically, that is, granting the suppositions from which he sets out. But in the application to practice, it is necessary to consider that the minimum of which he speaks, especially when it is not a physical, but what may be termed a moral minimum, is itself liable to vary." By this latter statement, he meant that a rise in the price of food may lower the laborer's standard of life instead of reducing the family birth-rate, and vice versa. The following is his statement³⁰ on this point:

"If wages were previously so high that they could bear reduction, to which the obstacle was a high standard of comfort habitual among the labourers, a rise of the price of food, or any other disadvantageous change in their circumstances, may operate in two ways; it may correct itself by a rise of wages, brought about through a gradual effect on the prudential check to population; or it may permanently lower the standard of living of the class, in case their previous habits in respect of population prove stronger than their previous habits in respect of comfort. In that case the injury done to them will be permanent, and their deteriorated condition will become a new minimum, tending to perpetuate itself as the more ample minimum did before. It is to be feared that of the two modes in which the cause may operate, the last is the most frequent, or at all events sufficiently so, to render all propositions ascribing a self-repairing quality to the calamities which befall the labouring classes, practically of no validity."

In case of a fall in the price of food or of any other event that would increase the per capita consumption of the laboring class, Mill believed that the effect would be likely to be a rise in their standard of life instead of an increase in their numbers only in case "an effective national education of the children of the labouring class" be accompanied by "a system of measures which shall (as the Revolution did in France) extinguish extreme poverty for one whole generation."

In a chapter devoted to the explanation "of the differences of wages

²⁹ *Ibid.*, sec. 2.

³⁰ *Ibid.*

in different employments" Mill incorporated and considerably supplemented Adam Smith's treatment of this subject.

The most noteworthy features of Mill's discussion of profits in Book II are his analysis of gross profits and his explanation of the differences in the rate of profits in different industries and different places. In gross profits he saw three elements, remuneration for "abstinence, indemnity for risks and remuneration for the labour and skill required for superintendence."

"The lowest rate of profit which can permanently exist," he said, "is that which is barely adequate" for these purposes. In case of the remuneration for abstinence this minimum, according to his analysis, "depends on the comparative value placed, in the given society, upon the present and the future; (in the words formerly used) on the strength of the effective desire of accumulation." He did not indicate a similar criterion for the determination of the minimum required for the other two elements but clearly intimated that such a minimum exists.⁸¹

Differences in risks and in the remuneration for superintendence, "the circumstances which render one employment more attractive, or more repulsive than another," and monopoly explain, according to his analysis, the differences in the rates of profits in different industries and different places. Regarding remuneration for superintendence or entrepreneur's wage, he said: "though . . . it does not vary much from employment to employment" [it] "varies very greatly from individual to individual, and can scarcely be in any two cases the same. It depends on the knowledge, talents, economy, and energy of the capitalist himself, or of the agents whom he employs; on the accidents of personal connections; and even on chance."

"After due allowance . . . for these various causes of inequality," he said, "the rate of profit on capital in all employments tends to an equality."⁸²

As a basis for the explanation of this general rate he laid down the proposition that "the cause of profit is, that labour produces more than is required for its support" or, as he puts it in another place, "the reason why capital yields a profit is because food, clothing, materials and tools last longer than the time which was required to produce them; so that if a capitalist supplies a party of labourers with these things, on condition of receiving all they produce, they will, in addi-

⁸¹ Book II, Ch. XV. sec. 1.

⁸² *Ibid.*, sec. 4.

tion to reproducing their own necessities and instruments, have a portion of their time remaining, to work for the capitalist."⁸³

Assuming then that "profit arises . . . from the productive power of labour" and that in the final analysis, "leaving rent out of the question," all the capitalist's advances "consist of wages of labour," Mill arrived at Ricardo's conclusion, "that the rate of profits depends on wages; rising as wages fall, and falling as wages rise," meaning, however, by *wages of labor* "the *cost of labor*," the cost to the capitalist rather than "what labour brings in to the labourer" being the significant thing in this connection.

In his chapter on rent he clearly expounded and defended the differential theory of his predecessors, Anderson, West, Malthus, and Ricardo, giving especial attention to the demonstration of the existence of no-rent lands and to the attacks of Henry C. Carey. Like Ricardo, he regarded rent as "the effect of a monopoly" and distinguished between "remuneration for the original powers of the land itself" and for the "capital expended on it," holding, however, that remuneration for "capital actually sunk in improvements, and not requiring periodical renewals, but spent once for all in giving land a permanent increase of productiveness, . . . loses altogether the character of profits, and is governed by the principles of rent."⁸⁴

E. EXCHANGE

In this book Mill treated the topics of value, money and credit, international trade, and the rate of interest. For the most part he expounded the views of his predecessors, especially Ricardo, on these subjects, making, however, some contributions of his own.

For the purpose of explaining their value he classified goods into three groups according as their supply is "absolutely limited in quantity," "susceptible of indefinite multiplication without increase of cost," or "susceptible of indefinite multiplication but not without increase of cost." The value of goods of the first class, he said, is determined solely by demand and supply; that of the second class, by demand and supply and cost of production, the latter determining their normal or natural or "long-run" value and the former their market value or their fluctuation about the normal or natural or long-run level; and the third class by demand and supply and the cost of their production "in the most unfavorable existing circumstances."

⁸³ *Ibid.*, sec. 5.

⁸⁴ Book II, Ch. XVI, sec. 5.

In explaining cost of production he followed Ricardo closely except at one point, namely in placing greater emphasis upon expenses from the entrepreneur's point of view, that is, wages plus profits, taxes, etc. He held, however, that quantity of labor is an important factor in the determination of the ratios in which commodities exchange for each other, but, when his exceptions to this principle are taken into consideration as well as his exposition of the principle itself, it is seen that he really held that these ratios are determined by the expenses necessarily incurred by entrepreneurs in production.

In his discussion of the doctrine of demand and supply he called attention to the inappropriateness of speaking of a ratio between a quantity of goods offered for sale, the common definition of supply, and the *effectual demand*, usually defined as the desire for goods backed by purchasing power. In order to remedy this difficulty he defined demand as the quantity of goods buyers will take and showed that this quantity as well as the quantity offered for sale varies with the value and that these two quantities are equalized by competition—competition between buyers, if demand exceed supply, and between sellers, if supply exceed demand. Value thus rises or falls until the quantities demanded and supplied are equalized. "The value which a commodity will bring in any market," he said,³⁵ "is no other than the value which, in that market, gives a demand just sufficient to carry off the existing or expected supply."

In the chapters on money and credit he expounded the best thought of his time on these topics, adding little or nothing to the theory of the subject but much to the clarity and completeness of its exposition. He followed these with discussions of overproduction, international trade, and the effect of exchange on distribution, in which his own contributions were greater.

In a chapter entitled "Of Excess of Supply" he combated a theory which had been defended by Malthus, Dr. Chalmers, and Sismondi to the effect that a general overproduction or oversupply of commodities is possible and, indeed, of not infrequent occurrence. Admitting that overproduction of one or more commodities is possible and common, he denied the possibility of the overproduction of all commodities on the ground, first, that the wants or desires of people for material things have never been and are not likely soon to be completely satisfied, and second, that there can never be a lack of purchasing power, since in the last analysis purchasing power is supplied by

³⁵ Book III, Ch. II, sec. 4.

commodities themselves, goods being exchanged for and furnishing the means of purchasing each other.

In his treatment of international trade and international values he built upon the foundations laid by Adam Smith and Ricardo. He started with the latter's proposition that "it is not a difference in the *absolute* cost of production which determines the interchange between nations but a difference in the *comparative* cost," illustrating the principle as follows³⁶: "It may be to our advantage to procure iron from Sweden in exchange for cottons, even although the mines of England as well as her manufactories should be more productive than those of Sweden; for if we have an advantage of one-half in cottons, and only an advantage of a quarter in iron, and could sell our cottons to Sweden at the price which Sweden must pay for them if she produced them herself, we should obtain our iron with an advantage of one half, as well as our cottons. We may often by trading with foreigners, obtain their commodities at a smaller expense of labour and capital than they cost to the foreigners themselves. The bargain is still advantageous to the foreigner, because the commodity he receives in change, though it has cost us less, would have cost him more."

According to this principle goods produced in one country do not exchange for those produced in another in the ratio of their costs of production. What then does determine the ratio of exchange of such goods? Mill's answer was that "the produce of a country exchanges for the produce of other countries, at such values as are required in order that the whole of her exports may exactly pay for the whole of her imports."³⁷ This is merely the doctrine of demand and supply applied to international trade. The cost-of-production doctrine does not hold in this case because capital and labor do not move across international boundaries with the same facility as between different parts of the same country, but demand and supply operate here in substantially the same manner as elsewhere. The goods of one country are offered in exchange for those of another because of the advantages to both parties in such trade, the quantities offered constituting and measuring demand from the point of view of the nation to which they are tendered. These quantities change as the ratio of exchange changes and, if at a given ratio they do not exactly balance, competition will change the ratio until they do.

Mill illustrated his principle by the assumed case of an exchange

³⁶ Book III, Ch. XVII, sec. 2.

³⁷ Book III, Ch. XVIII, sec. 4.

of English broadcloths for German linens, the exchange being profitable for both countries because "10 yards of broadcloth cost in England as much as 15 yards of linen, and in Germany as much as 20." Under these circumstances, "when each country produced both commodities for itself, 10 yards of cloth exchanged for 15 yards of linen in England and for 20 yards in Germany." An exchange between the two countries of 10 yards of cloth for any number of yards of linen between 15 and 20 would be profitable for both. "If, for example, 10 yards of cloth exchange for 18 yards of linen, England will gain an advantage of 3 yards on every 15, and Germany will save 2 out of every 20." At other ratios such as 10 for 17 or 10 for 19 there would be gains for both countries but they would be differently distributed. Let us suppose that at a ratio of 10 to 17 Englishmen would buy only 800 times 17 yards of linen while Germans would be willing to buy 1,000 times 10 yards of cloth at that price. Not being able to get that amount with 800 times 17 yards of linen, the Germans would bid up the price by offering more than 17 yards of linen for 10 yards of cloth. This higgling of the market would continue until a ratio was found at which the amount of linen Englishmen would buy and the amount of cloth Germans would buy would be offered each for other, no more, no less.³⁸

In subsequent chapters covering various aspects of the subjects of money, credit, banking, and the use of money in international trade Mill was at pains to show that the intervention of money and credit in international trade does not change or modify the operation of this principle of "the Equation of International Demand," as he called it.

In the chapters entitled "Of Money as an Imported Commodity," "Of the Foreign Exchanges," "Of the Distribution of the Precious Metals through the Commercial World," "Influence of the Currency on Exchanges and on Foreign Trade," and "Of the Regulation of a Convertible Paper Currency" he ably discussed the views of his predecessors and contemporaries on these subjects, making emendations and additions at many points, and achieving a clearer and more comprehensive treatment than any previously published.

He added chapters on "The Rate of Interest," "Competition of Different Countries in the Same Market," and "Distribution as Effected by Exchange." Under the first head he treated the rate of interest on loans, loosely and not very successfully connecting it with what he wrote in the preceding book on the rate of profits.

³⁸ Book III, Ch. XVIII, sec. 2.

Under the second head he discussed commercial rivalry between nations or underselling in foreign markets. He stated the principle involved as follows³⁹: "Nations may, like individual dealers, be competitors, with opposite interests, in the markets of some commodities, while in others they are in the more fortunate relation of reciprocal customers. The benefit of commerce does not consist, as it was once thought to do, in the commodities sold; but, since the commodities sold are the means of obtaining those which are bought, a nation would be cut off from the real advantage of commerce, the imports, if it could not induce other nations to take any of its commodities in exchange; and in proportion as the competition of other countries compels it to offer its commodities on cheaper terms, on pain of not selling them at all, the imports which it obtains by its foreign trade are procured at greater cost."

"One country can undersell another in a given market to the extent of entirely expelling her from it," he argued,⁴⁰ "on two conditions. In the first place, she must have a greater advantage than the second country in the production of the article exported by both; meaning by a greater advantage (as has been already so fully explained) not absolutely, but in comparison with other commodities; and in the second place, such must be her relation with the customer country in respect to the demand for each other's products, and such the consequent state of international values, as to give away to the customer country more than the whole advantage possessed by the rival country; otherwise the rival will still be able to hold her ground in the market."

He considered low wages a cause of underselling rival nations only in case they are peculiar to certain branches of industry and not general. If they are general, they do not affect the relative costs of production upon which the advantages of international trade are based.⁴¹

In the chapter on distribution as affected by exchange he defended the proposition that exchange and money make no difference in the laws of wages, rent, and profits. They constitute the mechanism through which these laws operate but in no way change or modify the laws themselves.

³⁹ Book III, Ch. XXV, sec. 1.

⁴⁰ *Ibid.*

⁴¹ *Ibid.*, sec. 3.

F. INFLUENCE OF THE PROGRESS OF SOCIETY ON PRODUCTION AND DISTRIBUTION

In this book the dynamic, as distinguished from the static, aspects of economics are discussed; that is, the nature and consequences of the changes which normally accompany advances in civilization. Among these Mill mentioned the "growth of man's power over nature," brought about by increasing "knowledge of the properties and laws of physical objects" accompanied by "the skill requisite for executing the most delicate processes of the application of science to practical uses"; "a continual increase of the security of person and property"; and "an improvement in the business capacities of the general mass of mankind" in the form chiefly of a growing "capacity for coöperation." Mill declared this capacity to be "the peculiar characteristic . . . of civilized beings" and gave as an example of its exercise the formation of joint-stock companies and of associations of working people for production and buying.

In all the leading countries of the world these changes have resulted in a continuous increase in population and wealth, and have produced effects on value and prices by diminishing the costs of production in manufactures and by bringing into play in agriculture the opposing forces of decreasing costs of operation and lower margins of cultivation. Mill summarized these effects as follows ⁴²: "The tendency, then, being to a perpetual increase of the productive power of labour in manufactures, while in agriculture and mining there is a conflict between two tendencies, the one towards an increase of productive power, the other towards a diminution of it, the cost of production being lessened by every improvement in the processes, and augmented by every addition to population; it follows that the exchange values of manufactured articles, compared with the products of agriculture and of mines, have, as population and industry advance, a certain and decided tendency to fall. Money being a product of mines, it may also be laid down as a rule, that manufactured articles tend, as society advances, to fall in money price."

He further argued that "Whether agricultural produce increases in absolute as well as comparative cost of production, depends on the conflict of the two antagonistic agencies, increase of population and improvement in agricultural skill. In some, perhaps in most, states of

⁴² Book IV, Ch II, sec. 2

society, (looking at the whole surface of the earth), both agricultural skill and population are either stationary, or increase very slowly, and the cost of production of food, therefore, is nearly stationary. In a society which is advancing in wealth population generally increases faster than agricultural skill, and food consequently tends to become more costly; but there are times when a strong impulse sets in towards agricultural improvement," as, for example, "in Great Britain during the last twenty or five and twenty years" and in a still greater degree in France.⁴³

Mill thought that these changes had also greatly diminished price fluctuations by broadening and connecting markets through improved facilities for transportation and by the creation of a class of speculative dealers, the tendency of whose operations "is to equalize price; or at least moderate its inequalities. The prices of things are neither so much depressed at one time, nor so much raised at another, as they would be if speculative dealers did not exist."⁴⁴

In tracing the "influence of the progress of industry and population on rents, profits and wages," Mill closely followed Ricardo, his discussion, however, being more detailed and differing slightly from Ricardo's at certain points. Declaring that "the characteristic features of what is commonly meant by industrial progress resolve themselves mainly into three—increase of capital, increase of population, and improvements in production," he considered first the effect of each of these operating separately, assuming the others to remain stationary; second, the effect of the first two operating at the same time; and third, the effect of all three operating together.

An increase of population, the amount of capital and the state of improvements remaining stationary, he held, would produce the following effects: *a fall in the wages of labor* due to the increase in the supply of labor, demand remaining the same; *a fall in the margin of cultivation and a rise in the price of agricultural produce* caused by the increase in the demand for food (on the assumption that the standard of living of the laboring class includes more than the necessities and that their decreased wages would result in a per-capita decrease, not in the amount of food, but in that of the other products previously consumed); *a rise in rents* caused by the lower margin of cultivation and the higher price of agricultural produce; *stationary or, possibly,*

⁴³ *Ibid.*, sec. 3.

⁴⁴ *Ibid.*, sec. 5.

slightly higher profits. Mill's reasoning on this latter topic is summarized in the following passage ⁴⁵:

"The increase of population will have diminished the reward of labour, and if its cost is diminished as greatly as its real remuneration, profits will be increased by the full amount. If, however, the increase of population leads to an increased production of food, which cannot be supplied but at an enhanced cost of production, the cost of labour will not be so much diminished as the real reward of it, and profits, therefore, will not be so much raised. It is even possible that they might not be raised at all. The labourers may previously have been so well provided for, that the whole of what they now lose may be struck off from their other indulgences, and they may not, either by necessity or choice, undergo any reduction in the quantity or quality of their food. To produce the food for the increased number may be attended with such an increase of expense, that wages, though reduced in quantity, may represent as great a cost, may be the product of as much labour, as before, and the capitalist may not be at all benefited. On this supposition the loss to the labourer is partly absorbed in the additional labour required for producing the last installment of agricultural produce, and the remainder is gained by the landlord, the only sharer who always benefits by an increase of population."

Assuming an increase in the amount of capital, population and improvements remaining stationary, the effects, according to Mill, would be as follows: *a rise in wages* due to an increased demand for labor, the supply remaining stationary; *a fall in profits* due to the increased cost of production; *no change or a rise in rents* according as laborers use their increase in wages for the purpose of enlarging their consumption of non-food products only or partly in an increase of their consumption of food products.

Assuming both population and capital increasing, improvements remaining stationary, the effects would vary according as one is increasing faster than the other or both are increasing with equal rapidity. On the former assumption, "the case is so far assimilated with one or the other preceding"; but on the latter, the effects, according to Mill's reasoning, would be a fall in the margin of cultivation, a rise in the price of agricultural produce, a rise of rents, and a fall in profits. Real wages would remain stationary, the demand and the supply of labor having increased in the same proportion.

The improvements, the effects of which Mill considered, are those in the production of commodities "which enter into the habitual con-

⁴⁵ Book IV, Ch. III, sec. 1.

sumption of the labouring class," and those "applicable only to luxuries consumed exclusively by richer people," which produce "no effect in altering the distribution of the produce."⁴⁶

Of these improvements there are two kinds: "Some consist in a mere saving of labour, and enable a given quantity of food to be produced at less cost, but not on a smaller surface of land than before. Others enable a given extent of land to yield not only the same produce with less labour, but a greater produce; so that if no greater produce is required, a part of the land already under culture may be dispensed with."⁴⁷

Assuming these improvements to take place suddenly (in order that their effects may be noted without the complication of a contemporaneous increase of population and capital), the effects, according to Mill, would be as follows: First, there would be *a smaller cost of production and a fall in the price of food*. In case the improvement were of the first kind, there being no change in the quantity produced or in the amount of land under cultivation, rents measured in quantity of produce would be unchanged but money rents would fall, since the price per unit of produce had fallen. In case the improvement were of the second kind, the area of cultivation would be decreased, the poorest lands being thrown out of cultivation, since no more food than before is needed; both produce and money rents would fall, the latter to a greater degree than in the first case. Second, "in the beginning," Mill said,⁴⁸ "money wages would probably remain the same as before, and the labourers would have the full benefit of the cheapness. . . . So far profits would be unaffected." On account of lower prices, being able to purchase more with the same money wages, laborers could either increase their consumption and raise their standard of living or increase the size of their families without lowering their standard of living. In the first case they would be permanently benefited by the change; in the second, after the lapse of a generation, the increase in population would have lowered their money wages to the old figure, the costs of production would have correspondingly decreased, and profits would have correspondingly increased.

On the assumption that all three of these changes are taking place simultaneously, Mill described the effects in the following words⁴⁹: "The habits and requirements of the labouring classes being given

⁴⁶ *Ibid.*, sec. 4.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*, sec. 5.

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(which determine their real wages), rent, profits and money wages at any given time are the results of the composition of these rival forces. If during any period agricultural improvement advances faster than population, rent and money wages during that period will tend downward, and profits upward. If population advances more rapidly than agricultural improvements, either the labourers will submit to a reduction in the quantity or quality of their food, or if not, rent and money wages will progressively rise, and profits will fall."

It was Mill's opinion that the power of the forces represented by the increase of population and capital is inherently greater than that represented by improvements, and consequently that the second of the above-mentioned results is the normal and natural one, the first appearing sporadically and occasionally.

The final summary of his conclusions is thus expressed⁵⁰: "The economical progress of society constituted of landlords, capitalists, and labourers, tends to the progressive enrichment of the landlord class; while the cost of the labourer's subsistence tends on the whole to increase, and profits to fall. Agricultural improvements are a counter-acting force to the two last effects; but the first, though a case is conceivable in which it would be temporarily checked, is ultimately in a high degree promoted by these improvements; and the increase of population tends to transfer all the benefits derived from agricultural improvements to the landlords alone."

The conviction that profits tend to fall in countries progressing in civilization and especially in that phase of it represented by increasing wealth and continual advance in industry and commerce, led Mill to reflect upon the consequences of this tendency.

The first one he noted is described in the following passage⁵¹: "When a country has long possessed a large production, and a large net income to make savings from, and when, therefore, the means have long existed of making a great annual addition to capital; (the country not having, like America, a large reserve of fertile land still unused), it is one of the characteristics of such a country, that the rate of profit is habitually within, as it were, a hand's breadth of the minimum, and the country therefore on the very verge of the stationary state." By the *minimum of profits* he meant "some particular rate of profit, which is the lowest that will induce the people of that country and time to accumulate savings, and to employ those savings

⁵⁰ Book IV, Ch. III, sec. 5.

⁵¹ Book IV, Ch. IV, sec. 4.

productively"; and by the *stationary state*, the state of a country in which a minimum has been reached and in which consequently, "no further increase of capital can for the present take place."⁵²

He was convinced that such a minimum of profits is a reality. Some capital would be accumulated, he thought, if there were no profits, but savings under such conditions, he believed, would be used as a provision for bad times and a reserve "for sickness and infirmity" or "as a means of leisure and independence in the latter part of life, or a help to children in the outset of it" and would "have not much tendency to increase the amount of capital permanently in existence."⁵³

The minimum rate necessary to induce accumulations sufficient to add to the sum total of capital in existence depends, according to his view, upon the strength of the effective desire of accumulation and the degree of risk involved in the productive employment of capital. As he showed in an earlier section, these vary from time to time and place to place and have a tendency, the former to increase and the latter to decrease, as civilization advances.

According to Mill, four influences operate to prevent a country (like England, for example) which is "within a hand's breadth of the minimum," from actually reaching it. These are "overtrading and rash speculation" and "the commercial revulsions" by which they "are always followed"; "improvements in production"; "the acquisition of any new power of obtaining cheap commodities from foreign countries"; and "the perpetual overflow of capital into colonies or foreign countries, to seek higher profits than can be obtained at home."

"Commercial revulsions" result in the destruction and waste of capital, temporarily diminish its volume, and raise the rate of profit. They occur periodically and have their basis in a characteristic of human nature which Mill suggested in the following passage⁵⁴: "By the time a few years have passed without a crisis, so much additional capital has been accumulated, that it is no longer possible to invest it at the accustomed profit; all public securities rise to a high price, the rate of interest on the best mercantile security falls very low, and the complaint is general among persons in business that no money is to be made. . . . But the diminished scale of all safe gains, inclines persons to give a ready ear to any projects which hold out, though

⁵² *Ibid.*, secs. 3 and 4.

⁵³ *Ibid.*

⁵⁴ *Ibid.*, sec. 5.

at the risk of loss, the hope of a higher rate of profit; and speculations ensue, which with the subsequent revulsions, destroy, or transfer to foreigners, a considerable amount of capital, produce a temporary rise of interest and profit, make room for fresh accumulations, and the same round is recommenced."

As indicated in an earlier paragraph, "improvements in production" enlarge the field for the investment of capital without causing a fall in the rate of profits; importations of food delay or retard the fall in the margin of cultivation and thus prevent the cost of labor from increasing and the rate of profits from falling as much as would otherwise be the case; and the outflow of capital to foreign fields of investment diminishes the amount that would otherwise be invested at home.

On account of the tendency of profits to a minimum and the rapidity with which temporary decreases in the volume of capital from crises and other causes that do not weaken the effective desire for accumulation or increase the risks involved in the productive employment of capital, are made good, Mill was not so much concerned as some of his predecessors and contemporaries had been over governmental expenditures, emigration, and other phenomena which may temporarily make inroads on the capital of the country. He also thought that, for the same reason, the effect upon the laboring class of the conversion of large amounts of circulating into fixed capital in the form of machinery had been misinterpreted. Any temporary diminution in the amount of the wages fund due to this cause would, he thought, be almost immediately made good by new accumulations, and the increased productivity of labor caused by the machinery would enlarge the funds from which savings could be made in the future and ultimately enlarge the funds devoted to the support of labor.

The "stationary state," which Mill believed would result from economic progress under the existing order, would be or might be, he thought, more desirable than the present one. "I confess," he said,⁵⁶ "I am not charmed with the ideal of life held out by those who think that the normal state of human beings is that of struggling to get on; that the trampling, crushing, elbowing, and treading on each other's heels, which form the existing type of social life, are the most desirable lot of human kind, or anything but the disagreeable symptoms of one of the phases of industrial progress. . . . The best state for human nature is that in which, while no one is poor, no one desires to be richer,

⁵⁶ Book IV, Ch. VI, sec. 2.

nor has any reason to fear being thrust back, by the efforts of others to push themselves forward."

The thing most to be desired in old countries far advanced in civilization, like England, he thought, is better distribution rather than greater production of wealth. To this end "a conscientious or prudential restraint on population" he considered to be "indispensable, to prevent the increase of numbers from outstripping the increase of capital, and the condition of the classes who are at the bottom of society from being deteriorated." He also advocated "a system of legislation favouring equality of fortunes, so far as is consistent with the just claim of the individual to the fruits, whether great or small, of his or her own industry."

"Under this twofold influence," he said,⁵⁶ "society would exhibit these leading features; a well paid and affluent body of labourers; no enormous fortunes, except what were earned and accumulated during a single life-time; but a much larger body of persons than at present, not only exempt from the coarser toils, but with sufficient leisure, both physical and mental, from mechanical details, to cultivate freely the graces of life, and afford examples of them to the classes less favorably circumstanced for their growth. This condition of society, so greatly preferable to the present, is not only perfectly compatible with the stationary state, but, it would seem, more naturally allied with that state than with any other."

G. THE INFLUENCE OF GOVERNMENT

The characteristic features of Mill's treatment of this topic are his classification and discussion of the functions of government and the exceptions he made to the laissez-faire principle.

He distinguished between what he called *necessary* and *optional* functions of government, meaning by the former those "which are inseparable from the idea of a government, or are exercised habitually and without objection by all governments," and by the latter, "those respecting which it has been considered questionable whether governments should exercise them or not." Under "necessary functions" he specified protection against force and fraud, the passing of laws defining the rights of property and the regulation of inheritance, the enforcement of contracts, the settlement of disputes and the care of dependents. The consideration of the manner in which the exercise of these necessary functions affects economic affairs led him into a well-

⁵⁶ *Ibid.*

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organized and fairly comprehensive discussion of taxation, public debts, the effects of imperfect security of person and property, imperfect systems of laws and administration of justice, laws of inheritance, partnership, stock companies, and insolvency.

He introduced his discussion of the optional functions of government with a chapter on "Interference of Government Grounded on Erroneous Theories," in which he analyzed and stated his objections to the doctrine of protection, usury laws, regulation of prices, monopolies, laws against combinations of workmen, and restraints on opinion and on its publication. He followed this with a chapter on "The Grounds and Limits of the Laissez-faire or Non-Interference Principle."

In this chapter he distinguished between what he called "authoritative" and "unauthoritative" intervention. *Authoritative intervention* controls "the free agency of individuals" by interdicting persons "from doing certain things; or from doing them without its authorization" or by prescribing "to them certain things to be done, or a certain manner of doing things which is left optional with them to do or to abstain from." *Unauthoritative intervention* is limited to "giving advice and promulgating information; or when, leaving individuals free to use their own means of pursuing any object of general interest, the government, not meddling with them, but not trusting the object solely to their care, establishes, side by side with their arrangements, an agency of its own for a like purpose."⁵⁷

In Mill's opinion the sphere of authoritative intervention is much more limited than that of unauthoritative, and strong reasons must be found before it can be legitimately entered. As guiding principles he laid down the following rules⁵⁸:

"Whatever theory we adopt respecting the foundation of the social union, and under whatever political institutions we live, there is a circle around every individual human being, which no government, be it that of one, of a few, or of the many, ought to be permitted to overstep; there is a part of the life of every person who has come to years of discretion, within which the individuality of that person ought to reign uncontrolled either by any other individual or by the public collectively."

"I apprehend that it [this circle sacred to the individual] ought to include all that part which concerns only the life, whether inward or out-

⁵⁷ Book V, Ch. XI, sec. 1.

⁵⁸ *Ibid.*, sec. 2.

ward, of the individual, and does not affect the interest of others, or affects them only through the moral influence of example."

"Even in those portions of conduct which do affect the interest of others, the onus of making out a case always lies on defenders of legal prohibition."

"Scarcely any degree of utility, short of absolute necessity, will justify a prohibiting regulation, unless it can also be made to recommend itself to the general conscience; unless persons of ordinary good intentions either believe already, or can be induced to believe, that the thing prohibited is a thing which they ought not to wish to do."

Following these rules Mill argued in favor of government interference in the following cases:

(1) *Education*. The general rule that the consumer is a competent judge of commodities does not always apply in this case. The very fact that he lacks education may unfit him to judge of its value to him. "Education," said Mill, "therefore, is one of those things which it is admissible in principle that a government should provide for the people. The case is one to which the reasons of the non-interference principle do not necessarily or universally extend."⁵⁹

(2) *Persons exercising power over others*. Government should intervene for the protection of children and other young persons and the lower animals.

(3) *Contracts in perpetuity*. "The practical maxim of leaving contracts free, is not applicable without great limitations in case of engagements in perpetuity."⁶⁰

(4) *Delegated management*. Under this head Mill compared government management of enterprises with that of joint-stock companies, and concluded that both are admissible, the former in cases of monopoly particularly, the latter—under government control—in most other cases.

(5) *To give effect to the wishes of persons interested*, as for example the regulation of the hours of labor and the disposal of colonial lands.

(6) *Care of the poor*.

(7) *Colonization*, involving consequences to the "interests of the nation or of posterity, for which society in its collective capacity is alone able, and alone bound, to provide."⁶¹

⁵⁹ *Ibid.*, sec. 8.

⁶⁰ *Ibid.*, sec. 10.

⁶¹ *Ibid.*, sec. 14.

(8) *In default of private agency.* Things in the general interest which on principle private agencies should care for and which it is their interest to care for, should be undertaken by government if these private agencies default.

PART III

EARLY CRITICS OF THE CLASSICAL ECONOMISTS

CHAPTER XII

THE NATIONALISTS

A. INTRODUCTION

At no stage in its development did the Classical Political Economy enjoy immunity from criticism. The objections brought against it varied widely in importance and character, some of them relating to non-essentials and others to essentials, and some of them being sound and others unsound. In the following chapters we shall present only those which seem to us to have had a tendency to modify or to undermine the system, and as representatives of these criticisms we have selected groups of men who in some cases differed widely from each other in other points than the one in question, and some of whom were in agreement with the classical economists on so many points that in any broad classification they should be grouped with rather than against them. These groups are roughly described by the terms the Nationalists, the Old Historical School, the Optimists, and the Socialists.

These critics were scattered chronologically throughout the entire period covered by the development of the classical system, and some of them, therefore, appeared before that development was complete. For this reason, the classical system was represented to some of them by Adam Smith only, to others by Adam Smith, Ricardo, and their adherents, and to still others by a group large enough to include John Stuart Mill.

Under the head Nationalists, we group four men who believed in common that the classical economists had neglected to give due weight to the national elements of economic life. They contended that in the science of political economy the welfare of nations should be the prime consideration and that this was frequently in conflict with that of individuals and classes; that the proper explanation of economic phenomena requires that they be contemplated from the national viewpoint; and that such contemplation frequently leads to results very different from those reached by the classical economists, whose viewpoint was individualistic and cosmopolitan. The earliest of these critics,

Lord Lauderdale, was also the least drastic, and on account of the appearance of his writings before the days of Ricardo and Mill his criticism was aimed at Adam Smith and his predecessors and contemporaries.

B. LORD LAUDERDALE

Lord Lauderdale, a member of a Scotch family, was born in 1759 and died in 1839. He studied jurisprudence at Glasgow and Edinburgh, and was admitted to the Scottish bar as an advocate. From 1781 to 1788 he was a member of the House of Commons. In 1789, after the death of his father, he inherited a position in the House of Lords which he held during the remainder of his life. At times he was employed by the English Government on various missions, particularly to France in connection with the treaties that were made during the period of the French Revolution. Most of his writings were on practical questions and were in monographic form.

His most pretentious work was entitled *An Inquiry into the Nature and Origin of Public Wealth* and was published in 1804.

1. *The Distinction between Public Wealth and Private Riches.*

In this book he charged that Adam Smith and his contemporaries and predecessors had identified public wealth with private riches and attempted to show that this is a grave error resulting in much fallacious reasoning.

The fundamental distinction between these two aggregates¹ he indicated in his definition of *public wealth* as the sum total of "all that man desires as useful and delightful to him" and of *private wealth* as the sum total of "all that man desires as useful or delightful to him which exists in a degree of scarcity." Scarcity is a fundamental element in private wealth because it is essential to value by which it is measured. To increase public wealth, therefore, it is only necessary to augment the *sum total* of the commodities that are useful and delightful to man, whereas to increase private riches it is necessary to increase the *value* of these commodities. Value, according to Lauderdale, is determined by the relation between demand and supply, increasing when demand relatively increases or supply relatively decreases, and decreasing under opposite conditions. The volume of private riches, therefore, changes whenever the relation between demand and supply changes, whereas changes in the volume of public wealth are pro-

¹ *Inquiry into the Nature and Origin of Public Wealth*, 2d ed. (1819), pp. 57 and 58.

portioned solely to supply. It is obvious, therefore, that these two aggregates do not necessarily increase and decrease together. On the contrary, as a rule one increases when the other decreases. As Lauderdale puts it, "in proportion as the riches of individuals are increased by an augmentation of the value of any commodity, the wealth of the society is generally diminished; and in proportion as the mass of individual riches is diminished by the diminution of the value of any commodity, its [society's] opulence is generally increased."²

In illustration of the importance of distinguishing between these aggregates in matters of political economy, he asks: "What opinions would be entertained of the understanding of a man, who, as the means of increasing the wealth of . . . a country, should propose to create a scarcity of water, the abundance of which was deservedly considered as one of the greatest blessings incident to the community? It is certain, however, that such a projector would, by this means, succeed in increasing the mass of individual riches."³ On the other hand, he adds: "Suppose it possible to create as great an abundance of any species of food as there exists of water: what would be thought of the advice of a man who should cautiously recommend, even at the moment of the pressure of scarcity, to beware of creating this boasted abundance for however flattering it might appear as a remedy for the immediate evil, it would inevitably diminish the wealth of the society?"⁴ He further illustrates his point by reference to the relative effects upon public wealth and private riches of changes in the value of public securities and land.

Lord Lauderdale was not blind to the fact that the increase in the value of one commodity or of a group of commodities through diminution of supply or increase of demand must be offset by a diminution in the value of other commodities exchanged for them, but he held that this offset was not exact. He believed that it might be either more or less, and consequently that the aggregate of value was subject to change. In proof of this he instanced the results of Gregory King's studies on the effects of changes in the relation of demand and supply upon value and himself made an elaborate analysis of the subject.⁵ His final conclusion is "That there exists only one case, and that a very improbable one (to wit, when the quantity and the demand for any commodity are proportionately increased, and funds at the same

² *Ibid.*, p. 49.

³ *Ibid.*, pp. 41 and 42.

⁴ *Ibid.*, p. 43.

⁵ *Ibid.*, pp. 60-107.

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time are created for the acquisition of the increased quantity, as well as the satisfaction of the increased demand), in which an increase in the mass of individual riches produces a similar effect on the wealth of the community." ⁶

2. *Criticism of Smith's Doctrine of Saving.*

The failure of Adam Smith and others to distinguish between public wealth and private riches was also responsible, in the opinion of Lauderdale, for a second error, namely the doctrine that parsimony or saving is one of the chief, possibly the chief, means of increasing public wealth.

Smith's reasoning on this subject was substantially as follows: Labor is the active productive agent; capital sets labor in motion; and capital is the result of saving. Therefore, the more saving the more capital; the more capital the more labor set in motion; and the more labor set in motion the more wealth.

Lauderdale attempted to show that this reasoning is faulty at every point. In the first place he held that capital as well as labor is an active factor in production; in fact that it works in substantially the same sense that labor works; and that its true function, instead of being that of setting labor in motion, is that of "supplanting a portion of labour which would otherwise be performed by the hand of man," or of "performing a portion of labour which is beyond the reach of the personal exertion of man to accomplish." ⁷

In accordance with this view he maintained that "the wealth of man can alone be increased":

"1. By labour, ^{as} ^{of} ^{the} ^{quantity} ^{and} ^{meliorating} ^{the} ^{quality} ^{of} ^{the} ^{objects} ^{of} ^{his} ^{desire}; ^{and} ^{by} ^{capital}, employed in increasing ^{the} ^{quantity} ^{and} ^{meliorating} ^{the} ^{quality} ^{of} ^{the} ^{objects} ^{of} ^{his} ^{desire};

"2. By labour, whether personal or *performed by capital*, employed in giving form to, and adapting commodities for, consumption." ⁸

The relative amounts of labor which can be performed respectively by personal labor and by capital depend upon the knowledge possessed by the people of a nation of the work beyond the capacity of man performable by capital. According to Lauderdale, this knowledge is not in any way related to or proportional to the volume of saving; it depends entirely upon other conditions.

⁶ Lauderdale, *op. cit.*, pp. 102 and 103.

⁷ *Ibid.*, p. 155.

⁸ *Ibid.*, p. 273.

The amount of capital needed by a nation depends entirely upon this knowledge and at any particular time is, therefore, strictly limited. It may be too great as well as too small, and either too great or too small an amount is detrimental to a nation, in the first case because the production of an excess of capital is a waste of labor and natural resources which might otherwise have been used in increasing consumable wealth and in the second case because the nation loses the advantage of the superior and extraordinary labor which capital alone can perform.

3. *The Adjustment of the Volume of Capital to a Nation's Needs.*

The proper adjustment of the volume of capital to the nation's need for it, in Lauderdale's opinion, does not depend upon saving or parsimony; indeed, he felt that to place such emphasis upon saving as Adam Smith did was likely to result in overproduction of capital.

To think of saving as the only, or even as the primary, source of capital he regarded as another grave error. The most important causes of the increase of capital, he said, are the discovery by interested persons of ways in which labor may be supplanted by capital or in which labor beyond the capacity of man may be performed by it and the creation of the additional industry necessary to produce the capital for which uses have been discovered. To divert labor from the production of consumable commodities, the method of saving or parsimony, is, therefore, only one and not the chief source of capital accumulation. It is also a dangerous source since it is practised to the greatest extent by people who do not labor, and consequently by people who have no means or inducement to discover methods of supplanting or supplementing personal labor, and thus is likely to result in overproduction. On this same ground he also condemned forced saving through government action, such as a too rapid payment of the public debt.

C. ADAM HEINRICH MÜLLER

The nationalistic point of view was also represented by Adam Heinrich Müller, a Prussian nobleman by birth, whose life covered the period of 1779 to 1829. He studied Protestant theology at Göttingen but in 1805 was converted to Catholicism and entered the employ of the Austrian government. The years 1806-1809 he spent in Dresden as tutor of the Saxon prince Bernard of Saxe-Weimar, subsequently

reëntering the service of the Austrian government, part of the time in the capacity of consul-general at Leipzig.

While in Dresden he delivered a course of lectures which were published under the title *Vorlesungen über die deutsche Wissenschaft und Literatur*. In after years he published other books, among which were the following:

Von der Idee des Staats (Dresden, 1809)

Die Elemente der Staatskunst (Berlin, 1809)

Die Theorie der Staatshaushaltung (Vienna, 1812)

Versuch einer neuen Theorie des Geldes (Leipzig, 1816)

Von der Notwendigkeit einer Theologischen Grundlage der gesammten Staatswissenschaften (Leipzig, 1819)

Müller's ideas on economic subjects were colored and largely determined by his attachment to and his sympathy with the old régime and his opposition to the new ideas and reforms associated with the Napoleonic system. He was a thoroughgoing reactionary of the Austrian type, cooperating with, backing up, and assisting to the extent of his ability Prince Metternich and his party in their attempts to put Europe back to the condition in which it was before the French Revolution. He sincerely believed that the old institutions and the old social classes and relations, including the Catholic Church and its accessories, were best and that the reform movements of his time tended to undermine the very foundations of national prosperity and well-being. One of his chief contributions to this reactionary movement was his reaction against Adam Smith, which took the form both of detailed criticism and of the development of opposing doctrines and points of view. In his *Histoire des doctrines économiques* Rambaud summarizes Müller's criticism as follows: "The doctrine of Smith and of modern political economy is nothing but a theory of individual property and private interests; it takes no account of the life of the people as a whole in its national solidarity and in the continuity of its history; it gives scarcely a thought to the maintenance of a collective production for future generations or to spiritual forces, professions and enjoyments. For the continent of Europe an entirely different system is needed, one in which care for the true wealth of the nation, for the production of national power instead of care for the sum total of the private riches of individuals will predominate. Both intellectual and moral as well as physical capital should constitute the object of this study."⁹

⁹ Joseph Rambaud, *Histoire des doctrines économiques* (1899), pp. 244, 245.

It is obvious that the two men were at opposite poles in their points of view; Smith's was that of the individual, Müller's that of the nation. Smith started with the individual and advanced to the nation, believing that from an economic viewpoint a nation is merely the aggregate of the individuals who compose it. Müller started with the nation and believed that the individuals who compose it cannot be understood, even in their economic relations and interests, except as parts of the larger whole. "Man is not to be thought of," he said, "outside of the state," which he defined as "the totality of human affairs, their union [*Verbindung*] into a larger whole." The will of all the people (*volonté de tout le peuple*), he said, was not to be distinguished from the general will (*volonté générale*), nor the interests of all (*intérêt de tous*) from the general interest (*intérêt générale*). Individual riches mean nothing apart from the guarantees they receive from the nation as a whole.¹⁰

The contrast between the two points of view is made more striking by Müller's emphasis on the continuity of the state and the national economy, which he considered the greatest of all political problems. According to his view, states and nations include past and future generations as well as the present, and between these he recognized a division of labor quite as significant as that between the contemporaneous operations described by Smith. The present is the heir of the past and passes on an inheritance to the future.

According to Müller, this solidarity in time (*zeitlichen Solidarität*) has great economic significance. The credit of the state cannot be understood without recognizing it, nor the inheritance of private property, nor the proper appraisal of the relative value of large and small estates, nor the significance to the national economy of a nobility of birth, which Müller regarded as the principal means of connecting past generations with the present.¹¹

Müller also reacted vigorously against the tendency of Adam Smith to rivet attention on material things and enjoyments to the exclusion of others, especially moral and spiritual ones, and upon self-interest to the exclusion of other motives. Smith, he said, "shows how everything would be if everyone, regarding himself alone, should work exclusively for gain, if men should have no other or higher desire than that for physical well-being." As an ideal to set before men he considered this very bad. The farmer, he said, should work first of all

¹⁰ Quoted from Roscher's *Geschichte der National-Ökonomik in Deutschland*, p. 765.

¹¹ *Ibid.*, p. 766.

for God's sake and for the love of it, second for gross product, and last, as a consideration to come after all of these, for net product. The administration of a landed estate he declared to be an office, a public trust (*ein Amt*). Woe, he cried, to the purely rational agricultural economy which sees in the laborer only labor power and in the earth only soil, neglecting everything personal.

The conception of capital, he said, should not be limited to material things. There is such a thing as spiritual capital, among the elements of which he mentioned commercial experience, armies, citizens, laws, religion. Taxes, he said, should not be viewed as an insurance premium, but as interest on this invisible, but still fundamentally necessary, spiritual capital embodied in the state.¹² In overestimating mere material things, Müller claimed, Smith erred as greatly as did the Mercantilists in their overestimation of the precious metals.¹³

Müller held that the individualistic point of view led Adam Smith into many other errors, among them the advocacy of free trade. Smith, he said, assumed a world market in which foreign merchants constitute a kind of separate republic and on which the principle of division of labor operates on an international scale. He held that this was as much of a chimera as the conception of a universal empire. In contrast with that conception, nations should be regarded as great human beings differing in their bodily forms, in their ways of thinking and feeling, and in their activities and lives. With such conditions it cannot be admitted that each nation should produce only those things for which it is best fitted and for other things rely upon foreign trade. The peculiarities of nationality extend to economic activities and the maintenance and development of these frequently demand, according to Müller, the imposition of import and export duties and the maintenance and development of institutions which are old and apparently incomplete.

He was equally antagonistic to the doctrine of laissez-faire. To this he held that state despotism was preferable.

In Müller's opinion national development was better promoted by paper than by metallic money. The latter, like a universal language, is cosmopolitan in its influence; the former binds people to the country, since it discourages international trade just as national languages discourage foreign trade. In accordance with this view he discouraged

¹² Roscher, *op. cit.*, p. 768.

¹³ *Ibid.*, p. 769.

Austria from returning to a specie basis and in 1820 opposed loans for the retirement of her paper money.¹⁴

D. DANIEL RAYMOND

A third representative of the nationalist group, who combined some of the characteristics of the two already discussed, was an American born in Connecticut in 1786, Daniel Raymond by name. During the greater part of his life, which ended in 1849, he practised law in Baltimore. During the early years of his struggle to get a footing in his profession, and as a relief from reading "musty law books" and from the irksomeness of idleness, he read and thought on economic topics, and in 1820 he made public the results in a book entitled *Thoughts on Political Economy*. Three other editions of this book were published during the author's lifetime, in 1823, 1836, and 1840, respectively, in each one of which some changes and additions were made.¹⁵

Raymond was familiar with the writings of Adam Smith, Malthus, Ricardo, Lauderdale, Ganilh, and Say, but it was Lauderdale with whom he agreed. Like him Raymond criticized Adam Smith. Some of his conclusions closely resemble Müller's, but there is no reason for thinking he was familiar with that author's writings. He neglected Malthus and Ricardo, the explanation doubtless being his belief that the subject of distribution was relatively unimportant and possibly did not belong at all to political economy properly understood.¹⁶

Raymond criticized Adam Smith for failure to explain the true nature of national wealth. In his opinion, Smith made the capital error of identifying it with the riches of individuals and of believing that the best methods of increasing and promoting the latter were also the best methods of increasing and promoting the former. In opposition to this Raymond held that the two should be carefully distinguished and that the best and proper ways of increasing and promoting the national wealth could not be discovered by a study of the best ways of increasing and promoting individual riches and should, therefore, be a separate subject for study and the special care of the political economist.

So far his criticism is identical with that of Lauderdale, but the distinction he drew between national wealth and individual riches

¹⁴ *Ibid.*, pp. 769 and 770.

¹⁵ The differences between these editions are noted by Neil in his "Daniel Raymond," *Johns Hopkins University Studies*, Vol. 15, No. 6, Ch. II.

¹⁶ *Ibid.*, p. 30.

materially differed from that author's. The latter thought of both in terms of commodities and of identically the same commodities, and made the distinction turn upon the quality of scarcity, goods useful and desirable to men constituting national wealth and the same goods when scarce constituting individual riches, the degree of scarcity measuring such riches. Raymond made the distinction turn on the difference between goods and the capacity to produce them. According to his view, private wealth consists of property for the use of which the owner can obtain a quantity of the necessities and comforts of life, and the use he had particularly in mind is exchange. His conception of private wealth seems to have been derived from the common conception of a wealthy person, that is, one who has a relatively large amount of property, said property consisting largely of things which can be exchanged on the markets for the necessities, comforts, and luxuries of life.

This conception of wealth, however, is not, he urged, applicable to a nation. "An individual is wealthy," he said,¹⁷ "because he can rent his lands or loan his money for a quantity of the necessities and comforts of life, sufficient for his support, and unless he can do this he is not wealthy. A nation can neither rent its lands nor loan its money for a quantity of the necessities and comforts of life sufficient for a thousandth part of its support; a nation, therefore, cannot be wealthy in that sense of the word in which an individual is wealthy."

He then defined national wealth "as a capacity for acquiring the necessities and comforts of life" and added that "a capacity for acquiring by labor the necessities and comforts of life, for all its citizens, is as high a degree of national wealth, as any nation ever did, or ever can hope to obtain; and the comparative wealth of different nations, will always depend upon the extent of this capacity." In addition to labor, he said, this capacity depends upon "the nature of government," "the climate and soil of a country," "the extent of territory in proportion to the number of inhabitants," "denseness of population," "equal or unequal division of property," "the state of cultivation and improvement," "the degree of perfection to which the arts and sciences have been carried," "the nation's advantageous situation for commerce," and "the industrious habits of the people."¹⁸

In developing the consequences of this definition he spoke of the distinction between national property and national wealth. As is evi-

¹⁷ *Thoughts on Political Economy*, 1st ed., p. 33.

¹⁸ *Ibid.*, p. 37

dent from the passages already quoted, a nation's wealth is not measured by its property, which is quite inadequate to supply it with the necessities and comforts of life. A nation with a large property might be relatively poor in the capacity to produce, and consequently in real wealth as Raymond defined that term.

This distinction led him to a condemnation of accumulation or saving as a means of increasing national wealth. "This theory of 'Accumulation of the surplus of production above consumption,' or 'of income above expenditure,' in whatever manner; whether by 'parsimony,' or otherwise," he said, "is radically unsound, as it regards national wealth." Two great laws of nature, he argued, render it "absurd," namely, the perishable nature of the necessities of life and the law of population in accordance with which the human species multiply "in proportion as the means of subsistence are increased." Instead of accumulation, he contended, national policy should promote "the annual consumption of all the fruits of productive labor."¹⁹

Raymond also criticized Adam Smith for alleged failure to grasp the true conception of a nation. Smith made the mistake, he said, of identifying the interests of the nation with those of individuals and classes, whereas not infrequently the former are in conflict with the latter. As illustrations of such conflict he mentioned smuggling, the slave trade, and the conflicts between the interests of present and future generations. "A nation," he said, "is a unity, and possesses all the properties of unity. It possesses a unity of rights; a unity of interests, and a unity of possessions; and he who professes to treat of the interests of this unity, but departs from them, and treats of the interests of some constituent part of it, will just as certainly arrive at a wrong conclusion, as the arithmetician would who in performing an algebraic computation, should leave out one term of the equation."²⁰

Raymond not only emphasized the contrast between the interests of a nation and of the individuals and classes that compose it, but also that between the interests of different nations. "Every nation," he wrote, "is to consult its own interests exclusively, without any regard to the interests of other nations."²¹

From these fundamental criticisms he deduced others, of which the most noteworthy are the following:

(a) Adam Smith and others treated not of political but of private

¹⁹ *Ibid.*, pp. 51 and 53.

²⁰ Quoted by Neil, *op. cit.*, p. 52.

²¹ *Ibid.*, p. 52.

economy. "Political economy," he said, "is a science which teaches the nature of public or national wealth. . . . It professes to teach the most effectual means of promoting a nation's wealth and happiness, and it embraces every subject which has a tendency to promote them."

"The immediate object (of political economy) should be to instruct governments how to legislate, and not individuals how to get rich."²²

(b) Labor, which, with Adam Smith, he agreed is the sole cause of wealth, should not be classified as productive and unproductive, but as *productive* and *permanent*, the end of productive labor being to produce things for direct consumption, and that of permanent labor "to enlarge the boundaries of knowledge, and to augment the capacity for acquiring the necessities and comforts of life."²³

(c) Regarding the influence upon national wealth of agriculture, manufacture, and commerce, he did not agree with Smith. "Each of these three great departments of labor," he wrote, "has had its partisans, who have claimed for it the superiority over the others, as most conducive to national wealth. It is, however, manifest that in a national point of view they are but parts of one great system, each of them essential to the other. . . . The proportion that ought to exist between them will depend on circumstances and vary in different nations, and the wise legislator will encourage or restrain them in such way as will, in the circumstances of that nation, best advance national wealth and prosperity."²⁴

(d) He criticized Smith's doctrine of free trade, refuting his arguments one by one. He denied that each individual in seeking his own interest will employ his capital in the way most beneficial to the nation, and, while admitting that as a general rule a nation should import articles that can be produced outside cheaper than at home, he held that the exceptions to this rule are numerous. In this connection the costs of production that should be considered, he claimed, are not the initial ones but the average over a series of years. A protective policy, he believed, would in many cases reduce these.

As positive arguments in favor of protection he claimed that it is necessary, in order to give constant employment to the entire labor force; that by creating a monopoly of the home market, it promotes certainty and stability of demand; that it increases a nation's skill in the arts and sciences, and thus its capacity for acquiring the necessities

²² Neil, *op. cit.*, p. 54.

²³ *Ibid.*, p. 30.

²⁴ *Ibid.*, p. 31.

and comforts of life; that it raises the standard of living by preventing the competition of low-priced foreign labor; and that it prevents the dumping on our markets of the surplus products of England and other countries, and the consequent demoralization of prices and destruction of home markets and domestic manufactures.

He believed that tariffs require frequent revision, very often in the direction of higher, rather than lower, levels and that the tariff should be lowest upon those articles that are not or cannot be produced in this country, and highest upon those that employ the greatest number of people.

Regarding the question as to who pays the duty, his reasoning led him to the conclusion that the producer and the consumer share it between them.²⁵

E. FREDERICK LIST

The most influential and the best known of the Nationalists was Frederick List, who was born in the Kingdom of Wurtemberg, Germany in 1789. At the age of seventeen he became a clerk in one of the departments of the government and was subsequently promoted to the secretaryship of the minister who had charge of local affairs. In 1816 he was promoted to be chief examiner of accounts and to membership in the Court of Audit. In the following year, 1817, he was appointed to the newly established professorship of administration and politics in the University of Tubingen, but a reactionary ministry following the liberal one which was responsible for his appointment dismissed him from this post on account of his reform sentiments and activities. This episode marks the beginning of a conflict between him and the government which resulted in his imprisonment for a time and in his exile to the United States.

List landed in New York in June, 1825, and soon after toured the country with Lafayette, whom he had met in Paris during a forced visit to France to escape arrest. This trip brought him into contact with the leading men of the country, including politicians, and enabled him to get a first glimpse of American life under the most favorable auspices. At this time protectionism was the leading political issue in this country, and List eagerly and enthusiastically espoused the cause of the North in its advocacy of high duties, joining with Mathew Carey, Charles J. Ingersoll, and other Pennsylvania leaders in their propagandist activities. In this connection he published a

²⁵ *Ibid.*, pp. 36-38.

series of letters addressed to Ingersoll which were subsequently reprinted in pamphlet form under the title *Outlines of a New System of Political Economy* and which gave him high rank among protectionist writers and considerable reputation. In 1830 President Jackson appointed him consul to Hamburg, but the appointment was not confirmed by the Senate. Subsequently he received and occupied the post of United States consul to Leipzig. While in the United States he also made a moderate fortune through the purchase and successful operation of a coal mine which, however, he subsequently lost.

The last years of his life were spent in Germany, with short visits to France and England, and were devoted chiefly to the promotion of railroad construction and agitation for the establishment of a German *Zollverein*. In this connection he wrote voluminously and traveled extensively, for a time editing a paper entitled *Zollvereinsblatt*. Beside these writings, during a visit to Paris he submitted an essay to the French Academy in competition for a prize on the topic "Lorsqu'une nation se propose d'établir la liberté du commerce ou de modifier sa législation sur les douanes, quel sont les faits qu'elle doit prendre en considération pour concilier de la manière la plus équitable les intérêts des producteurs et ceux de la masse des consommateurs." For this he received, not the prize, but the commendation of the judges, who pronounced his production "a remarkable work." This essay was followed by the composition and publication of the book by which he is best known among economists, entitled, *Das Nationale System der politischen Oekonomie, der internationale Handel, die Handelspolitik und der deutsche Zollverein*. This book contains the most complete and exhaustive statement of his views on political economy. Compared with early writings and especially with his *Outlines of American Political Economy*, which appeared in 1827, and with his essay submitted to the French Academy in 1837, it indicates that his views evolved gradually under the influence of his observations and studies in Germany and the United States and especially of his American friend, Mathew Carey, and of Daniel Raymond's book on political economy. The resemblance between Raymond's views and List's is so close and striking that the charge of plagiarism was raised. List, however, vigorously denied it.

The *National System* consists of a preface, an introduction, and four books entitled respectively "History," "Theory," "Systems," and "Public Policy." "Two more books were planned on 'The Politics of the Future' and 'The Influence of Political Institutions on National

Wealth and National Power,' but we can only infer their general tenor from the essays contributed by List to the *Allgemeine Zeitung* and the *Zollvereinsblatt* during the last four years of his life."²⁶

In the preface he professes to give a history of his opinions and to place himself in proper relations to other economists, and in the introduction he gives a statement of his attitude toward the Classical Political Economy and a summary of his doctrines. Book I, the "History," is based upon the essay for the French Academy, and deals with the economic development of Italy, the Hansa towns, the Netherlands, England, Spain and Portugal, France, Germany, and North America. The conclusion is:

"History teaches us how nations which Nature has endowed with all resources necessary to attain the highest grade of wealth and power, may and must—without abandoning the end in view—modify their systems according to the measure of their own progress: in the first stage adopting free trade with more advanced nations as a means of raising themselves from a state of barbarism, and of making progress in agriculture; in the second stage fostering the growth of manufactures, fisheries, shipping, and foreign trade by means of commercial restrictions; and in the last stage, when they have reached the highest level of wealth and power, gradually reverting to the principle of free trade and unrestricted competition in both home and foreign markets, so that their agriculturists, manufacturers, and merchants may be kept from indolence and stimulated to retain the supremacy they have won. In the first stage, we see Spain, Portugal, and the Kingdom of Naples; in the second, Germany and the United States; France seems to be very near the last stage; but Great Britain is the only country which has actually reached it."²⁷

In the "Theory" he developed the distinction between what he called cosmopolitan and national economy and his doctrine of productive powers; in the "Systems" he criticized other systems of thought, including the Italian economists, Macchiavelli, Serra and Beccaria, the Physiocrats, Adam Smith, and Say; and in the last book he dealt with the "influence of England's insular supremacy on the manufactures of the Continent and North America" and "with the future commercial policy of the Zollverein."²⁸

List's criticism of the Classical Political Economy of his day is scattered throughout the volume and is repeated in slightly different form

²⁶Margaret E. Hirst, *Life of Frederick List and Selections from His Writings* (London, 1909), p. 123.

²⁷*National System* (Philadelphia, 1836), pp. 187 and 188.

²⁸Hirst, *op. cit.*, p. 127.

over and over again. It is summarized in the following passage: "The system of the School, as we have shown in the preceding chapters, presents three essential defects; firstly, a chimerical *cosmopolitanism*, which does not comprehend nationality, and which has no regard for national interests; secondly, a dead *materialism*, which regards everywhere the exchangeable value of things, taking account neither of the moral nor of the political interests of the present nor of the future, nor of the productive power of the nation; thirdly, a *separatism*, a disorganizing *individualism*; which disregarding the nature of social labor and the working of associative power towards its highest results, merely describes or depicts individual industry, as it would develop itself if unrestrained in society, that is with the whole human family, were it not separated into different nations."²⁹

By "cosmopolitanism" he meant *world* economy in contrast with *national* economy. Of Adam Smith he said: "The Title of his work is 'The Nature and Causes of the Wealth of Nations': that is, of all the nations of the world. He devoted a portion of his work to the various systems of political economy, but only with the view of showing of what little value they were, and of proving that political or national economy ought to yield to universal economy."³⁰

In opposition to this conception of the science he said:

"But between the individual and the whole human race there is the nation with its special language and literature, with its own origin and history, with its manners and habits, its laws and institutions, with its claims to existence, its independence, its progress, its duration, and with its distinct territory and association having not only an entirely separate existence, but having an intelligence and interest peculiarly its own; a whole existing for *itself*, acknowledging within itself the authority of law, but claiming and enjoying full exemption from the control of other similar associations, and consequently in the actual state of the world, able to maintain its independence only by its own strength and proper resources. As an individual acquires chiefly by the aid of the nation and in the bosom of the nation, intellectual culture, productive power, security and well-being, human civilization can only be conceived as possible by means of the civilization and development of nations."

"There are, moreover, enormous differences between nations; we find among them giants and dwarfs, well constituted bodies and abortions, civilized, half-civilized, and barbarous nations. But all these, as well as all individuals, have received from nature an instinct of preservation, and a

²⁹ *National System*, p. 262.

³⁰ *Ibid.*, p. 191.

desire of progress. It is the mission of political institutions to civilize barbarian nationalities, to enlarge those which are small, to strengthen those which are weak, and, above all, to secure their existence and duration. The mission of political economy is to furnish the economical education of the nation, and to prepare it to take its proper place in the universal association of the future."⁸¹

He characterized the materialism of the classical economists as follows:

"Adam Smith has so little understood the nature of those powers in general that he does not even consider as productive the intellectual efforts of those who are engaged in administering justice, and preserving order, giving instruction, upholding religion, or cultivating science and art. His researches are limited to that activity of men which produces material values. He acknowledges that the productive power of that activity depends on the skill and intelligence with which it is applied; but his investigations as to the causes of that skill and intelligence do not lead him beyond the division of labor, which he explains only by exchange, by increase of material capital, and by the extension of markets. Thus his doctrine becomes more and more materialist, special and individual. Had he pursued the idea of productive power without suffering himself to be controlled by that of value, *exchangeable* value, he would have comprehended that at the side of a theory of values there is required an independent theory of productive power to explain economical phenomena. But he went so far astray as to explain the moral powers by purely material circumstances, and from this error spring all the absurdities, all the contradictions, of which his school has been guilty down to this day, as will be seen, and which are the chief reasons why the teachings of political economy have found so little favor with the best minds."⁸²

In another place he said:

"It is beyond all doubt, that riches can only be acquired by the means of the mind and of the body, or of work; but that is not assigning a cause from which useful deductions may be drawn; for history shows that nations may be sunk into poverty and misery despite the labor and economy of their citizens. He who wishes to learn how one nation may have risen from poverty and barbarism to opulence and civilization, and how another has fallen from wealth and prosperity into poverty and misery, simply from the doctrine that labor is the cause of wealth and idleness is the parent of poverty (a remark made by Solomon before Adam Smith), will not fail to put this new question, what, then, is the cause of labor, and what that

⁸¹ *Ibid.*, p. 263.

⁸² *Ibid.*, pp. 212-213.

of idleness? The head, the hands, and the feet of men might be given with more accuracy as causes of wealth. At least, this would be much nearer the truth; the point of the question would then be to know why these heads, hands and feet applied themselves to the work of production, and why their efforts were successful? What is it but the mind which animates individuals? What is it but social order which makes their activity fruitful, and their natural powers efficient? The better a man comprehends what he owes to the future, the more his ideas and feelings lead him to secure a favorable position in life for those nearest to him, and to make them happy; the more he is accustomed from childhood to reflection and activity, the more his generous instincts have been cultivated, and his body and mind exercised—the more advantage he had in early life of fine examples—the more occasion he had to employ his intellectual and physical powers for the amelioration of his lot, the less is he checked in his proper sphere of activity, the happier are his efforts, and the more assured are the results; the more order and activity give him a title to respect and public consideration, the less is his mind a prey to prejudices, superstition, error and ignorance; finally the more he applies his mind and members to production, the more will he be able to produce, and the more assuredly will he reap the reward of his labor. In all these respects the principal thing is the condition of society in which the individual has been brought up, and in which he moves. It is important to know if science and art flourish in them; if institutions and laws favor religious sentiment, morality and intelligence, security for person and property, liberty and justice; if in the country all the elements of material prosperity, agriculture, manufacturing industry, and commerce are equally and harmoniously developed; if national power is strong enough to secure to individuals the transmission of material and moral progress from one generation to another, and to enable them not only to employ the whole national power of a country, but also, by means of external commerce and colonies, to employ the national power of foreign countries.”³³

What he called in the summary quoted above the classical economists’ “separatism” and “disorganizing individualism” he explained as follows:

“The system of the School contemplates only individuals enjoying full liberty in their reciprocal relations, individuals satisfied, provided they be left to their own natural instincts, which ever stimulate men to pursue their own interests. It is obvious that this is not a system of national economy, but a system of individual economy such as might occur without the intervention or protection of governments, without war, without the

³³ *National System*, pp. 211–212.

hostile measures of unfriendly countries. It cannot explain by what means nations now flourishing have attained their actual degree of prosperity and power, and by what causes others have lost their former prosperity and power. It shows how, in private industry, the natural agents, viz., labor and capital, concur in producing for the market many valuable articles, and how these articles are distributed and consumed among men. But it does not show how to bring into activity and to give value to the natural power at the disposition of a whole people, how to conduct a poor or feeble nation to prosperity and power: it does not enter into such considerations, because the School, repelling absolutely all public intervention, remains in ignorance of the particular condition of different nations, and seeks only the prosperity of all mankind." ⁸⁴

A fourth criticism is emphasized in various places, namely, that the classical economists fail to understand, and consequently to explain, the true relation between agriculture, manufacturing, and commerce. Adam Smith's contention that from the point of view of productivity agriculture ranks first, manufacturing second, and commerce third List declared to be incorrect; the truth, according to his view, being that labor is most productive in a nation in which all three of these branches of economic activity have been harmoniously developed.

"The richest nation, being that which possesses the greatest productive power, will be, of course, that which, upon its own territory, has carried its manufactures of every kind to the highest degree of reproductiveness, and the agriculture of which furnishes its population of manufacturers with the chief part of the food and raw materials requisite for their wants and business. . . .

"A nation pursuing only agriculture and a few of the more necessary mechanical arts, is without the first and principal division of labor among its citizens, and loses the most important half of its productive power; it even wants that division of labor which is so needful in the operations of special branches of agriculture. A nation with an industry so incomplete is less productive by half than one of well-arranged industry; with a territory of equal extent, or even much greater extent, with an equal, or even greater, population, its productive power will yield perhaps scarcely a fifth, or even a tenth part of the material wealth which a country of well adjusted industry can produce, and that for the same reason that in a complicated manufacture ten persons can produce not only ten times more, but perhaps thirty times more than one alone, just as the labor of a man

⁸⁴ *Ibid.*, p. 253

who has but one arm will not merely be one-half less, but perhaps an hundred-fold less than that of the man who has two arms." ⁸⁵

In contrast with the doctrines expounded by the classical economists, List in his introduction summarized his own views as follows:

(a) "Union of individual faculties in pursuit of a common end is the most effective means of obtaining individual happiness. Alone and apart from his fellows the individual is weak and helpless. The greater the number of those to whom he is socially united and the more complete the union, the greater and the more complete is the resulting moral and physical welfare of the individual members."

(b) "The highest union of individuals realized up to the present under the rule of law is in the State and the nation. The highest imaginable is the union of all mankind."

"Through exchange of products forced or encouraged by varieties of climate, soil and products, and through colonization forced by excess population, capital and talent, nature is constantly working towards this larger union, but at the present time is far from the goal."

"The union of nations which arises from international trade is still very imperfect since it can be shattered, or at least weakened, by war or by the selfish action of individual nations."

(c) "Maintenance, development, and perfecting of national spirit at present is, and must be, a chief object of national endeavor. It is no wrong and selfish aim, but a rational one, in perfect harmony with the true interests of mankind in general. It leads naturally to a final alliance of nations under the rule of law, [to] the universal union." The chief means to this end is the development and perfection of each nation's economy.

(d) Upon the development of a nation's productive powers depend the development and perfection of its economy and these in turn "are not only limited by the industry, thrift, morality, and intelligence of its individual members, and by its natural resources or material capital, but also by its social, political, and municipal laws and institutions, and especially by the securities for the confirmed existence, independence and power of nationality. However industrious, thrifty, enterprising, moral and intelligent the individuals may be, without national division of labor, and national cooperation of productive powers the nation will never reach a high level of pros-

⁸⁵ *National System*. p. 234.

perity and power, or insure to itself the lasting possession of its intellectual, social, and material goods."

(e) "In national economic development we must distinguish the following stages: the savage, the pastoral, the agricultural, the agricultural and manufacturing, the agricultural, manufacturing and commercial."

(f) "Every nation which attaches any value to its independence and continual existence must strive to pass with all speed from a lower stage of culture to a higher, and to combine within its own territory agriculture, manufactures, shipping, and commerce."

(g) To this end its commercial relations with other nations must be manipulated and adapted to the particular stage of development in which it finds itself. "The transition from savagery to the pastoral state, and from the latter to the agricultural state, are best effected by free trade with civilized, that is, manufacturing and commercial nations." The transition from the agricultural through the two successive stages cannot be accomplished under free trade, because at any given moment nations are in different stages of economic development, and those in the more advanced aim to secure "a monopoly in manufactures and trade," and to check "the progress of the less advanced nations." During these stages, therefore, protection is necessary and advantageous.

(h) Only nations in the temperate zone and with a suitable physical equipment are capable of passing through these stages of development, "since a temperate climate is the natural home of physical and mental effort." "Any attempt to found a native manufacturing power would be most injurious to the tropics. Unfitted by nature for such a course, they will make far greater advances in national wealth and civilization if they continue to exchange their products for the manufactures of temperate countries. This policy, of course, leaves the tropics in a state of dependence. But this dependence will be harmless, indeed it will disappear, when more of the nations of the temperate zone are upon an equality in manufactures, shipping, and political power; when it is both advantageous and possible for several manufacturing countries to prevent any of their number from misusing their power over the weaker nations of the tropics."

The *National System* as well as List's other writings lack the qualities which characterize scientific works. The style is journalistic and repetitious; bad logic, inaccuracies, contradictions, and unhistorical

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story abound. In spite of these defects, however, he emphasized any important truths and has exerted no little influence upon economists as well as upon public men and men of affairs. His attacks on Adam Smith have been met by many persons, most notably and directly perhaps by Professor Nicholson in his preface to Mr. Lloyd's translation, but he has also received high praise from well-known economists, particularly those of his own nationality. In a eulogy pronounced by Professor Eheberg at the unveiling of the Kufstein memorial in 1906 occurs the following passage:

"List was fitted as few have been to read in the book of the world. He went through life with his eyes open for all political and economic phenomena, and each impulse he received he passed on to others. His intercourse with statesmen, scholars, merchants, and manufacturers of all nations gave breadth, depth, and diversity to his knowledge, and continuously influenced by an active interest in the daily affairs of life, he grew to be a great economist, a far-sighted politician, a most effective and brilliant writer. . . . An important society of German merchants informed us that it could not subscribe to the statue because, in view of the present protectionist tendencies in the Empire, the time was inopportune to do honour to the champion of protection. One hardly knows whether to smile or sigh over such want of understanding. Many circles in Germany and Austria connect List's name almost exclusively with the struggle for free trade or protection, and rightly in so far as List was the first and most important advocate of protection. Under his influence, consciously or unconsciously, Prince Bismarck broke with free trade in 1879, and his utterances are still the most incisive weapons in the protectionist camp. Rightly too, in so far as List realized that Germany could receive no economic impulse, make no economic progress, until she became a united commercial territory, and her crushing internal tolls were exchanged for the uniform customs boundary. No sensible man can blame him for wishing to foster the budding German industries, crushed as they were by the overwhelming English output. But those entirely misunderstand List who look at him as a mere protectionist. He was never a man of cast-iron views. 'If I had been an Englishman,' he said himself, 'I should have been a free trader.' He always had before him as the goal of his endeavors universal free trade."³⁶

In his *Literaturgeschichte der Staats- und Sozialwissenschaften*,³⁷ Professor Schmoller, in commenting upon Professor Eheberg's remarks concerning List's doctrine of productive powers, wrote:

"But the essential thing is nevertheless that with this thought the whole

³⁶ Quoted by Hirst, *op. cit.*, pp. 133 and 134.

³⁷ Pp. 104 and 105.

science of political economy was placed upon another footing. As Eheberg with right says, it was by this means that the most important step was made in substituting for the Smithsonian method of economic thought a freer method. The materialistic conception of a mechanical process of nature under which valuation or value appeared as the sole essential cause of all changes was replaced by a psychological, historical conception. The attention was directed to the intelligence, the morality, the technical knowledge of men and human communities, to the transfer of these most essential causes of all economic development from generation to generation, to their extension from individual issues and centers outward to wider and wider circles, to the social and political institutions of society, which by the side of and above individuals are the bearers and executors of these psychological powers. Besides material capital and tools and machines, the productivity of industry depends upon a mass of historical circumstances, customs, bits of knowledge, practices, modes of procedure, public institutions, economic and political connections. These are the productive powers of which List speaks. Nearly all progress in Political Economy since the time of List lies in the development of this thought, in the psychological and socio-political foundation of the science."

A little further on Schmoller adds: "With the intuitive power of genius List conceived the thought that not individuals but social communities are the powers which act or which work in an active way in the history of economic life. He conceived that the institutions which give to these social communities their united economic life and which grow out of the great common interests of the community constitute the kernel of every economic policy. . . . He helped to found the socio-political conception of political economy in contrast to the individualistic conception which neither knows social communities nor understands them."

F. SIGNIFICANCE OF THE WORK OF THE NATIONALISTS

The criticisms made by the Nationalists raise questions of great importance. One concerns *the nature of the state and its relation to the individual*. Is the conception held by Müller that the nation is the real unit, the whole, and the individual only a part, an organ, correct; or is the state merely a means to the attainment of the ends of the individuals who compose it, a tool, an instrument for the realization of their life purposes? If the latter, what shall we say about the domination of classes and of majorities, of the functions of government, and of the interests of future generations in contrast with

those of the present? If the former, what are the limits of the subordination of the individual and how are the conflicting interests of present and future generations to be adjusted?

Persons who hold these conflicting views of the state and of its relation to individuals are bound to differ widely in their conception of the nature of political economy and in their solution of its problems. The line of cleavage here indicated not only separated one at least of the Nationalists from the classical school but has ever since divided political economists. To bring out this contrast and focus attention upon it was one of the services of the Nationalist group.

Another question raised was the relation between the science of political economy and the solution of the problems that confront statesmen. The Nationalists regarded such problems as the subject-matter of the science *par excellence*, and their solution as its only reason for existence. The classical economists did not neglect such problems, but they did not consider it their function to supply solutions for them. In their judgment such problems were usually complex, requiring for their solution a knowledge of political economy to be sure, but also a knowledge of other social sciences and the consideration of questions of expediency and frequently of local and temporary matters which lie outside the scope of any science. The function of the science of political economy, as they viewed it, was to supply principles of universal application, which could throw light upon one aspect only of the concrete problems of national and world life, and which perhaps could not completely illuminate even that one aspect. In the later development of the science the discussion of principles and of their application to problem-solving were frequently separated under such heads as "Theory" and "Practice," "Political Economy" and "Economic Problems," the "Science" and the "Art" of political economy, "Economic Principles" and "Application of Economic Principles." The second part in each of these subdivisions was rarely, if ever, identical with that exclusively cultivated by the Nationalists, but it included that field in whole or in part.

A third question concerns the propriety of separating for independent study and consideration the material interests of men from their other interests, and self-interest from their other motives. The Nationalists deprecated this practice and questioned the value of its results. The classical economists followed and defended it. The discussion of this question occupied economists for two generations and

cannot be said even yet to have been settled to the satisfaction of every one.

Some of their criticisms, especially of Adam Smith, were superficial and based upon either misunderstanding or misrepresentation. For example, the distinction between individual riches and national wealth drawn by Lauderdale and Raymond does not reveal any fundamental weakness in Smith's thinking. The latter was not unmindful of the importance of developing what Raymond and List called the "national powers" and of the relation between such development and the per-capita production of wealth, nor can he be convicted of misusing value as a measure of wealth. To be sure, he did not develop the doctrine of demand and supply and its relation to value sufficiently to guard against such an attack as Lauderdale and Raymond made upon him, but neither did he make the mistake of the former in holding that the total exchange value of the aggregate wealth of the world can be increased or decreased. The fallacy involved in the conception of an increase or a decrease in the exchange value of the aggregate of the goods between which exchanges take place was not indeed exposed by Smith, but it was by his successors, notably by John Stuart Mill, and there is no reason for thinking that the former fell into that error.

Neither did these critics do justice to Smith's theory of saving when they represented it as a mere doctrine of accumulation. It is much more than that. Its most important feature is the devotion of wealth to further production in contrast to its unproductive consumption. It involves accumulation, to be sure, but as a means to a specified end and not as an end in itself. As Mill later explained, what is saved is consumed as well as what is not saved, but by different people and for a different ultimate purpose.

Making due allowance for unjust and sometimes captious criticism, the Nationalists nevertheless rendered political economy a real service by noting the limitations of the work of the classical school and suggesting new fields of research and new services to be rendered.

CHAPTER XIII

THE OLD HISTORICAL SCHOOL

A. HISTORICAL BACKGROUND

The reaction against the classical economists represented by the Nationalists was followed and reinforced by another more comprehensive in its scope and farther-reaching in its influence, namely, that of the so-called Old Historical School. While a similar reaction appeared in other European countries,¹ the school was a German product. Several circumstances seem to have helped in bringing it into existence, among them most worthy of mention being the rise and spread of the Hegelian philosophy, the development of what the Germans call *Kulturgeschichte*, and the work of Savigny.

George William Friedrich Hegel lectured on philosophy at the University of Berlin from 1818 to the date of his death in 1831. Here "he surrounded himself with an extensive and very active scientific school, and through his connection with the Prussian Government gained great political influence and acquired a reputation for his philosophy, as *the* philosophy of the State."²

The conception of the state which he developed was in marked contrast to that of the eighteenth century philosophers based upon the doctrines of individualism and natural rights. It was embodied in the Prussian state of that period, which he defended and set forth as an ideal, and it supplied a new background and suggested a new approach to the social sciences and furnished a number of conceptions and doctrines the application of which involved a thoroughgoing revision of these sciences. His followers became active as innovators in the fields of history, political and legal science, and political economy and stirred up a reaction against the methods used and the results already attained in these fields and an active desire for new constructive effort in them.

The *Kultur* historians of Germany were a group of workers who interested themselves in researches into and descriptions of the many

¹ See the writings of Sismondi in France and of Richard Jones in England.

² Schwegler's *History of Philosophy* (Seeley's translation), p. 398.

phases of the life of man which had been neglected by the historians before them, such as art, language, literature, religion, industry and commerce, science, habits, and customs. Everything which concerned civilization came within the scope of their researches, the details and the small things, the concerns of the many and common men as well as those of the few and the great, the affairs of everyday life as well as occasional happenings. In contrast, the older historians occupied themselves chiefly with the activities of states and rulers, wars, courts, and parliaments.

The center of the activities of this group of men was the University of Göttingen and one of the earliest and most noted of them was Justus Möser (1720-1794). Others whose work fell within the first and second quarters of the nineteenth century were Schlozer, Spittler, Sartorius, Meiners, Heeren, Bekman, Hullman, Hegewisch and Anton.³ These men emphasized the realistic side of things and created an atmosphere favorable to realistic studies. Of this group Schmoller wrote: "It will ever remain one of the chief titles to fame of Göttingen and the lower Saxon race that it counteracted the rationalism of the 18th century, and developed philology and technology, political science and legal history into a history of culture which 'polyhistorisch' and partly uncritical though it was, was far from worthless. . . . These writers will always represent the sound beginnings of a comparative, historical method and of the accumulation of material for a universal history of culture. From them came the impulse to the realistic side of things of Niebuhr, Bockh, Raumer and others. Gervinus' emphasis on the comparative historical method may have coöperated with them."⁴

Another influence worthy of mention in this connection came from Friedrich Carl von Savigny, who was professor of Roman law at Berlin from 1810 to 1842. In 1815, aided by Eichorn and Goschen, he founded the *Zeitschrift für geschichtliche Rechtswissenschaft*, in the preface to which he proclaimed the founding of an historical school of jurisprudence. His central thesis was that law is a spontaneous growth of the entire life (*Gesamtheit*) of a nation, one of the forms in which the essence or soul of the nation (*Volks-Geist*) reveals itself. Only by historical and comparative studies, he said, can the real character of law be revealed. To such studies this periodical was

³ See Gustav Schmoller, *Zur Literaturgeschichte der Staats- und Sozialwissenschaften* (Leipzig, 1888).

⁴ *Ibid.*, pp. 152 and 154.

devoted. Its influence was epoch-making in the history of the science of jurisprudence and far-reaching in other fields of study.⁵

B. WILHELM ROSCHER

Wilhelm Roscher, the founder of the school with which we are now concerned, was educated at Gottingen and Berlin in the years 1835-1839 and at an early age was brought into contact with the influences described in the preceding paragraphs, by his father (who was connected with the department of justice of the Kingdom of Hanover) and by his university teachers. Soon after taking his degree at the University of Gottingen he became lecturer in history and political science, and in 1844 extraordinary professor and in 1848 ordinary professor in that institution. In the latter year he was called to the University of Leipzig, where he remained until his death in 1894.

In 1843 he published a *Grundriss zu Vorlesungen über die Staatswirtschaft nach geschichtlichen Methode*, in which he sketched in broad outlines a conception of political economy and of the methods appropriate to its development in marked contrast to that of the classical school. He declared his purpose to be to accomplish for economics something like what Savigny had accomplished for jurisprudence; more specifically to discover the laws of the development of the economies of peoples or the laws of economic life. He used the terms *anatomy* and *physiology* of the economies of peoples as broadly descriptive of what he had in mind. In describing his ideal Schmoller used these words: "Man könnte fast sagen, was Roscher vorschwebte, sei eine allgemeine Geschichtstheorie, seien Gesetze des historischen Lebens überhaupt."⁶

His immediate goal was considerably more modest. "Our aim," he said, "is simply to describe what people have worked for and felt in matters economic, to describe the aims they have followed and the successes they have achieved—as well as the reasons why such aims were chosen and such triumphs won."⁷ To Roscher's mind there was no conflict between this aim and the more ambitious one described above. They are related to each other as means to end. The life of a people reveals itself in history, and this, therefore, must constitute the subject-matter of the social sciences. The various sides of this life, language, religion, art, science, law, state, and economy, may be the

⁵ See Palgrave's *Dictionary*, art. "Savigny."

⁶ *Op. cit.*, p. 153.

⁷ Quoted by Gide and Rist, *A History of Economic Doctrines*, translated by Smart and Richards, p. 382.

objects of as many different studies or sciences, but it is really a single whole, a unit, and he who would "scientifically understand one of these sides" must know all. This is especially true of law, the state, and political economy, which constitute a family related in the closest possible manner. Such researches as Roscher contemplated could only be accomplished, he declared, "if we keep in close touch with the other sciences of national life, with legal and political history, as well as with the history of civilization."⁸

To the carrying-out of the program which he thus sketched at the beginning of his academic career Roscher devoted his life. His researches covered a broad field and extended over more than half a century of time. The most important published results of them may be grouped under three heads:

(a) Historical monographs on a variety of topics, some of which were collected and published in 1861 under the title *Ansichten der Volkswirtschaft aus dem geschichtlichen Standpunkte*;

(b) *Zur Geschichte der englischen Volkswirtschaftslehre in 16. and 17. Jahrhundert*, published in 1851, and *Geschichte der Nationalökonomik in Deutschland*, published in 1874; and

(c) *System der Volkswirtschaft*, published in five parts as follows: *Die Grundlagen der Nationalökonomik* (1854), *Die Nationalökonomik des Ackerbaues und der verwandten Urproduktionsweige* (1859), *Die Nationalökonomik des Handels und Gewerbebetriebs* (1881), *System der Finanzwissenschaft* (1886), and *System der Armenpflege und Armenpolitik* (1894).

In the historical monographs Roscher treated a number of disconnected topics, but always in such a manner as to reveal or at least to throw light upon what he called the natural laws of development. Among these topics were luxury, the land economy of the oldest Germans, the geographical basis of large cities, the natural laws which determine the location of branches of industry, the economic significance of machine industry, the position of the Jews in the middle ages from the standpoint of general trade policy, commercial crises, etc., etc.

In these and other monographs his purpose was to trace the development of a group of related phenomena through a series of nations and a number of centuries in the hope and expectation of revealing laws. He believed that the processes of development of the nations of antiquity, the middle ages, and modern times were essen-

⁸ *Ibid.*

tially similar, and for that reason thought that a study of these processes in the ancient world, in which they had run a complete course, would be especially illuminating.

His method was to arrange an historical scheme, which he arrived at by making broad generalizations, and then to fill in this scheme by descriptions of concrete facts. In treating of luxury, for example, he distinguished three epochs, that "of the middle ages, the age of ripe culture and that of decline," and then described facts, selected from the history of different nations in different periods of their development, to illustrate each of these epochs. The facts illustrated his historical scheme, and this in turn illuminated and explained the facts. He used the study of "field systems" in agriculture as a means of illustrating a process of historical development. He connected these with the history of the family, the community, and villeinage. He showed how these social institutions had mutually influenced each other, how the agricultural constitution of a country or a period depends upon physical and social conditions which justify it and the change of which condemns it. "With a vast array of psychological and other materials he showed how necessary and helpful in ancient times living close together in villages was; how with increased civilization the manor system had advantages; how the manorial dues and common meadows corresponded to the economic life of the middle ages, and how they limit present-day production."⁹

His works on the history of political economy set a new standard for writings in that field and were unique at the time of their appearance. In that on political economy in England in the sixteenth and seventeenth centuries he described and classified the contents of the economic writings of Sir Walter Raleigh, Bacon, Mun, Hobbes, Harrington, Child, Petty, North, Locke, and Davenant and from them made generalizations regarding the characteristic features of mercantile thought and policy which superseded the phrases quoted from Adam Smith which had become traditional.

In his history of political economy in Germany he described in the same objective and comprehensive manner the writings of a thousand or more German authors, including works on finance and political science as well as on theoretical and practical economics. He also included illuminating accounts of the economic history of the periods in which the works described were written. He grouped these writers chronologically, characterizing the period before 1648 as the

⁹ Schmoller, *op. cit.*, pp. 167 and 168.

theological humanistic, that extending from 1648 to about 1750-80 as the *cameralistic* (*politilich-Kameralistisches*), and that extending from 1780 to the date of his writing as the *scientific*.

The following characterization by Schmoller is comprehensive and illuminating:¹⁰

"Primarily Roscher's book is a learned and bibliographically exhaustive treatise. In a broad series of investigations, expositions and monographs for a decade he had prepared himself for this book. Very many of these must be used together with the main book by everyone who is interested in the persons and the writings of the times in question. In the main work in regard to over a thousand authors, Roscher told what they wrote, what their books contained, what position they took with reference to the more important problems of the science. He read everything of which he wrote, and it was his purpose primarily to report, expound, not criticise. Whenever he expresses judgment, as he frequently does, it is very carefully weighed; he scarcely ever blames anyone, but from his distribution of praise, and from the fine emphasis of his exposition and characterization one can always learn the impression the man made upon him. Although in his description of each particular author he placed before himself primarily the question how he stood with reference to the main features and tenets of present-day doctrine, yet naturally that did not happen without a certain unity of plan, a certain sameness of treatment in each case. This is a method of procedure which pushes the subjectivity of the author into the background and his objectivity into the foreground, and it also fails sometimes to bring out the main points and the leading ideas. For those who consider a number of traditional economic doctrines, classifications and points of view as obsolete, many of the discussions will not have the significance they did for Roscher. To such a person perhaps Leibnitz's doctrine that the power of a country consists in its land, in its goods, and in its men, considered as the forerunner of the doctrine of the three productive factors, nature, capital, and labor, will have no value. But this method of exposition is so essential to Roscher's position with reference to inherited doctrines and to his method of objectively reporting things that to him certainly any other method of treatment would have appeared inaccurate and subjective.

"One could perhaps say that although Roscher's aim was primarily to write a history of books and doctrines, still his work is scarcely less important as a revelation of German economic conditions and institutions from the sixteenth century to the present time. The connection of economic theories with politics and political theories is everywhere carefully followed out. In the main the exposition continues only down to the founding of

¹⁰ *Ibid.*, pp. 160, 161.

the Customs Union. Recent development is very briefly treated. As Roscher did not speak of himself, so also Socialism and the entire development of social policy which preceded the appearance of his book were only summarily treated. The followers and German adherents of Adam Smith thus seem to have been given an importance which scarcely would be assigned to them today."

Roscher's *System* was designed as a correction and extension of the famous textbook of Rau, which was at the acme of its fame when Roscher began his career and which he very much admired. He followed Rau in the general arrangement of the books and chapters and even in the presentation of his views in short, pithy paragraphs supported by elaborate foot-notes. Like Rau also his purpose was to supply a guide to administrators and legislators as well as a textbook for students.

In the *Grundlegung* he discussed the subjects usually covered in American textbooks, such as definitions, classification of subject-matter, history of the science, and general principles. Here he reveals his indebtedness to and appreciation of the classical economists, whose theories he expounds, many of them with approval. At some points he modified their conclusions and their statement of principles, but he more frequently illuminated them by a mass of historical material presented for the most part in foot-notes. In this part of his work he shows clearly that his purpose was not so much to criticize as to supplement the older economists. He does this most effectively, however, in the other volumes of the *System* in which he covered ground they had almost entirely neglected.

Of these the two that rank highest are *Die National-Ökonomik der Ackerbaues* and *Die National-Ökonomik des Handels und Gewerbefleisses*. Here he did pioneer and epoch-making work, superseding the older Rau and pointing out the road to be followed by the succeeding generation of students. In these books he traced the historical development of industry, commerce, and the production of raw materials in the nations of modern Europe, using as a background their general civilization since the beginning of the middle ages in contrast with that of ancient nations, savage peoples, America, the European colonies, and Asia. He described the characteristic features of country and city life in each period since the beginning of the middle ages, including the methods and technique of production and distribution, the status of the different classes of people, and the relation of the economic to the political, religious, and social life of the time.

He showed how each period developed out of the preceding and how present-day economic and social problems are connected with the past. As Schmoller¹¹ puts it, "the field is investigated upon which state interference and individual action touch each other, on which the historical forms assumed by custom and law struggle with new interests and with attempts to form new organizations upon which the spirit of a people, the antiquities of its culture and geographical conditions influence those elements of production, exchange and credit which are common and universal."

His *Finanzwissenschaft* and *Armenpflege* are likewise treatises on the historical development of economic institutions, but they cover narrower fields than the books just described and offered less scope for pioneer work. In the former the methods followed in securing and using funds for the support of government, and in the latter the methods of caring for and the policy followed regarding the poor, are depicted for each stage in the development of modern Europe, and the connection between this development and present-day problems in these fields is traced.

All of these books of Roscher's system have been partially, and perhaps entirely, superseded by later works of other authors which are the product of more detailed and more thorough and accurate investigation, but this fact does not in any degree detract from the merit due him for having started this branch of research and for accomplishing so much in it. He, so to speak, gave the impulse to and set the model for the work of these others.

The following statements quoted from Schmoller's *Literaturgeschichte*¹² admirably characterize Roscher's work as a whole:

"Roscher began as philologist and historian. He devoted a simple, quiet, moderate life of scientific and pedagogical labors to the one problem of putting abstract political economy on an historical basis, of transforming the Cameralistic theories of Rau and the theories of the English based upon natural rights into historical laws."

"He was not an economic historian in the sense in which Nitsch, Inama-Sternegg and others are, that is in the sense that he critically investigated and described certain epochs in the economic history of Germany or other countries. He was not a critic of sources like Ranke. Neither did he aim like Savigny at showing that human institutions are not produced by rational processes but grow unobserved out of the spirit of the times. He

¹¹ *Op. cit.*, p. 158.

¹² Pp. 150-153.

was primarily a student of the great *Kultur* historians of Göttingen who had their starting point in Justus Möser."

"In speaking of these matters William Scherer often described Roscher's service as that of saving for Germany the traditions of the Göttingen school of *Kultur* historians. He is the true follower of Justus Möser, the universally trained *Kultur* historian among political economists. His power lies in a very rare breadth of training and of reading, in a realistic sense for the details of economic life; his interest was primarily in the great problems of the historical processes by which nations and states have developed as they had already been formulated by Aristotle and Macchiavelli. He tried to go to the bottom of the problems of state life by the discovery of economic processes. He sought for the natural laws of economic development. Studies of the ancients, utilization of more recent historical writings, investigations of statistics served him as empirical material for the discovery of universal truths with reference to the course of political and economic history. Sometimes he reminds one of Montesquieu and Herder; sometimes of Ritter's inspiring attempts to explain the course of history naturally and to understand it teleologically. In certain of his views he was in harmony with Buckle, whose whole endeavor was the discovery of the natural laws of history. One might almost say that what Roscher had before him as a goal was a universal theory of history, the laws of historical life *par excellence*, a goal too high for the present, perhaps, but one after which great souls will continue to strive and after which he may be permitted to strive in whom fineness of spirit and observation is combined with universal culture."

C. BRUNO HILDEBRAND

To this historical trend of thought and activity in the field of economics started by Roscher in 1843 a noteworthy contribution was made by Bruno Hildebrand, who, born in Naumburg on the Saale in 1812, became privatdocent in history at Breslau in 1836, having in previous years studied philosophy and history in the same institution. In 1841 he was called to the chair of political science of the University of Marburg. He took an active part in the movement of 1848 in the direction of more liberal political institutions for Germany, serving as representative of Marburg in the conference or parliament of representatives of German states held that year in Frankfurt, and in 1849-1850 as a representative in the Hessian Parliament.

On account of opposition to alleged unconstitutional demands of the Hessian government he lost his position in the University of Marburg in 1850 and went to Switzerland, where he served as professor first in the University of Zurich and afterward in the University of

Berne. In addition to his work in the latter university, he founded and for a number of years conducted a bureau of statistics at Berne. In 1861 he was called to the professorship of political science at the University of Jena, where he remained until his death in 1878. In 1863 he founded the *Jahrbuch für Nationalökonomie und Statistik*, which he edited alone until 1873 and, with the aid of Professor Conrad, who had been his student, from that date until his death, after which Professor Conrad became sole editor. In 1864 he founded the Statistical Bureau of the United Thuringian States and directed its operations during the remainder of his life.

Hildebrand's interests and activities extended into business and social affairs as well as teaching, science, literature, and politics. In Zurich, Berne, and Jena he took part in the organization of certain railroad lines, and he helped in the establishment of friendly societies in the places in which he lived. In 1846 he spent some time in England in the study of labor conditions and manufactures.¹⁸

The wide scope of his activities doubtless kept his literary output within narrower limits than would otherwise have been the case, but it was nevertheless quite extensive. In the field of *statistics* he published: in 1853, *Statistische Mittheilungen über die volkswirtschaftlichen Zustände Kurhessens*; in 1860, *Beiträge zur Statistik des Kantons Bern*; in 1867-1878, *Statistik Thüringens*; and a number of articles in the *Jahrbuch*. On *economic conditions and ideas in the ancient world* he published in 1845: *Xenophontis et Aristotelis de œconomia publica doctrinæ illustratæ*; in 1862, *De antiquissima agri romani distributionis fide*; and magazine articles entitled "Untersuchungen über die Bevölkerung des alten Italiens" and "Die soziale Frage der Vertheilung des Grundeigentums in Klassischen Altertum." In the field of finance he published in 1860, *Die Kurhessische Finanzverwaltung* and an article in the *Jahrbuch* entitled "Die Vermögenssteuer und die Steuerverfassung in Althessen während des 16. und 17. Jahrhunderts und die aus der Vermögenssteuer Hessens hervorgegangene Grundsteuer." Other historical monographs treated of the stages in the development of the economic life of peoples under the heads *Natural, Geld- und Kreditwirtschaft* and *Die Entwicklungsstufen der Geldwirtschaft*, and of the history of the German woolen and linen industries.

The book in which he most clearly indicated his attitude toward the Classical Political Economy and his views on the subject of method

¹⁸ Palgrave's *Dictionary*, art. "Hildebrand"

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in economics was published in 1848 under the title *Die National-ökonomie der Gegenwart und Zukunft*. At the time of its publication a second volume was contemplated, but it was never completed. In this book he critically reviewed the history of political economy and indicated his own belief in the historical method. He summarized his criticism of the classical school in the following statement¹⁴ :

"In spite of the great service of Adam Smith and his truly historical position, he and his school have this in common with their predecessors, the Mercantilists and the Physiocrats, that he sought to build up a theory of national economy whose laws should hold true for all times and all people. Just as Rousseau and Kant started a political school which sought to construct an absolute state without reference to the differences of mankind established by nature, and without reference to the different steps of their development or to the condition of different nations, so Adam Smith and his followers attempted to develop out of the special facts of individual peoples and out of the facts which belong to a particular moment in the development of nations, universally valid generalizations, and thus to create a sort of world economy or a sort of economy of humanity, which attempt corresponded completely to the age of rationalism in which Adam Smith lived. They (that is, Adam Smith and his school) proceeded from the view that all the laws of national economy, because they are founded in the relation of men to goods, raise themselves, so to speak, above the limits of time and space, remain true amid all changes of phenomena, and thereby they completely forgot that man as a social being, is the child of civilization and the product of history, and that his needs, his opinions, his relations to goods, as well as his relations to men, never remain the same, but differ geographically and historically, are continually changing, and are continually improving and advancing together with the entire culture of the human race."

"As a result of this cosmopolitanism a second peculiarity of Smith's teachings appear, which also is in harmony with the constitutional teachings and the literature of the period. All these writers proceed from the same atomistic view of society, and regard the individual as its sole end. To political rationalism the state appeared as a legal institution for the guarantee of the freedom of all individuals. To the economic rationalist economic society appears as a union or system of individual economies whose end is the easy and pleasant satisfaction of individual needs. The former founded society upon a legal compact, the latter upon a compact of exchange between individuals, and the private advantage of individuals served in both cases as the cause and the bond of society.

"On this account also both of them considered taxation as the price

¹⁴ Pp. 27 sq.

individuals pay to the State for the services rendered them, and founded upon this tenet the necessity for its distribution according to the income each citizen enjoys under the protection of the State."

"This elevation of the advantage of the individual to the rank of the first principle in economic science also involved the failure to relate economy to the moral problems of the race, and people have consequently and with justice convicted the school of Adam Smith of materialism. Though very often the majority, especially of the German followers of Smith in no sense regarded material enjoyment as the purpose of human life, and connected their teachings regarding political economy and the care of private fortunes with the higher moral good and the welfare of the State and regarded economic life as a means to the moral completeness of individuals, nevertheless, they accorded to ethics not the slightest influence upon the science of political economy, but like Adam Smith built upon the supposition of an all-powerful private egotism. Between the English and German sections of the Smithian school, therefore, only this difference is to be found, that the former proceeded from the fundamental principle that private egotism always leads of necessity to the common good, while the latter did not recognize this principle as universal and therefore wished to complete the political economy based upon the self-interest principle by the recognition of the necessity for some public care, through the agency of the State, of the common interests of society. To the entire school of Smith, however, economic science serves as a natural science of commerce in which the individual is looked upon as a pure egoistic power, who like every natural power is always active in the same direction and who under the same circumstances always acts in the same way. Therefore, in Germany as well as in England people have named their laws and rules natural economic laws, or the natural laws of economic life, and ascribed to them, as to other natural laws, eternal continuity."

He also criticized Proudhon, and questioned the accuracy of Roscher's attitude toward the classical school. His own opposition to this school was much more uncompromising and fundamental. "History, he thought, would not merely vitalize and perfect the science, but might even help to recreate it altogether."¹⁵

Neither did he quite agree with Roscher regarding the nature of the laws of development which were to constitute the subject-matter of the science in the future. In the first volume of the *Jahrbuch* he expressed himself as follows: "Economic science need not attempt to find unchangeable, identical laws amid the multiplicity of economic phenomena. Its task is to show how humanity has progressed despite

¹⁵ Gide and Rist, *op. cit.*, p. 383.

all the transformations of economic life and how this economic life has contributed to the perfection of mankind. Its task is to follow the economic evolution of nations as well as of humanity as a whole, and to discover the basis of the present economic civilization as well as of the problems that now await solution."¹⁰

D. KARL KNIES

The third member of the trio of German scholars who constituted the Old Historical School was Karl Knies, who was born at Marburg in 1821. In 1846 he became privatdocent in history and political science at Marburg and in 1849 at the polytechnic at Kassel. In 1852 he became a teacher at Schaffhaussen, Switzerland, and in 1855 was made professor of the Cameralistic sciences at Freiburg. From 1862 to 1865 he was head or director of a committee which had the administrative direction of the elementary and middle schools of Baden. For a number of years beginning in 1861 he was a member of the lower house of the Parliament of Baden and for a time was connected with the Ministry of the Interior. In 1865 he was called to a professorship of political science in the University of Heidelberg, which position he held until his death.

His writings cover a considerable range of topics, political as well as economic. In the latter field his most important books were: *Die Statistik als selbständige Wissenschaft* (1850), *Die politischen Oekonomie vom Standpunkte der geschichtlichen Methode* (1853; 2d ed., 1883), *Die Eisenbahnen und ihre Wirkungen* (1853), *Die Telegraph als Verkehrsmittel* (1857), *Finanzpolitische Erörterungen* (1871), *Geld und Kredit* (two volumes, 1873-1879), and *Karl Friedrichs von Baden brieflicher Verkehr mit Mirabeau und Du Pont* (1892). From time to time he also published a number of articles in encyclopedias and magazines.

His connection with the Old Historical School and his place in its development are chiefly due to the book on political economy from the standpoint of the historical method or, as he put it in the second edition, "from the historical standpoint." This is an exposition of the historical method including a discussion of the theoretical questions involved. In the introduction he indicates the place which in his judgment political economy occupies among the political and social sciences and the place which these larger groups occupy among sciences in

¹⁰ See in *Jahrbucher für Nationalökonomie und Statistik*, Vol. I, Hildebrand's articles entitled "Die gegenwärtige Aufgabe der Wissenschaft der Nationalökonomie," p. 145.

general; characterizes the work that had already been done on the history of political economy; and contrasts the historical with other methods.

In Part II, which he named "Volkswirtschaft," he described the relation to a people's economy of the territory it occupies, of its racial and other physical and spiritual characteristics, of the magnitude of its capital, of the degree of the exhaustion of its soil, of the state, of religion and the church, and of its dominating ideas and passions, and in the closing chapter indicated the place of a people's economy in their life as a whole, emphasizing in this connection the fact that it is only a part of a larger unit.

In the third part, which he entitled "Volkswirtschaftslehre," he first delimited the field of political economy, defining it by the phrase "Das Wirtschaftsleben der geschichtlichen Völker in seiner thatsächlichen Erscheinungen und in seiner durch Zeiten und Generationen andauerenden Entwicklung." In this first chapter he discussed such fundamental matters as division of labor, productive activities, the relation between production and consumption, labor and its relation to the individual and to the national economy and the relation of individual economies to each other and to the national economy as a whole. In the following chapters he discussed what he called the "absolute" assumptions of the older theory, namely, private property and self-interest, the relation between economic theories and ideas and the period in which they appear and the characteristics of the people among whom they originate, conflicts of interest between individuals and the nation and between classes, natural laws and social laws, the principle of relativity, and finally methods of investigation, including the establishment of causal relations between different classes of phenomena, the nature and limitations of statistical proof, etc., etc.

He contrasts the doctrine of relativity with the "absolutism" of the classical economists and illustrates it by showing that the conceptions we describe by the terms *private property*, *self-interest* and *productivity* change with changing conditions and are, therefore, relative to the time and the place in which they are used and to the characteristics of the people who use them; and that the methods used in the discovery of truth change with the different stages in the development of a science and at any given time are different in different sciences on account of their unlike characteristics.

Another phase of this doctrine is illustrated by a comparison of the institutions of different countries at the same stage in their develop-

ment. Knies showed that they are *similar* rather than *identical* in character and that the so-called stages in the development of different nations are analogous rather than identical.

His conviction of the soundness of this doctrine of relativity and of the universality of its application led him to question Roscher's conception of "laws of development" and his use of the term *historical method*. Since the comparisons which constitute the basis of the generalizations which Roscher called "laws" reveal similarities only and not identities, they do not establish the causal relations which are the essence of scientific laws. What Roscher discovered, therefore, were laws "of analogy" rather than "of causation."

The term *method*, in a scientific discipline, he said, should refer to the *modus operandi* of establishing causal relations between changing phenomena, whereas Roscher used it to indicate merely "a point of view." Knies, therefore, preferred to describe the innovation introduced by Roscher as the study of political economy from "the historical point of view," and in the second edition changed the title of his book accordingly.

In this connection he also carefully distinguished between political economy and economic history. While the former should make wide use of history and in a sense should be based upon it, it has a different purpose and cannot depend on historical investigation alone.

In the following passage Schmoller¹⁷ described Knies's place in the development of the Old Historical School in contrast to Roscher's:

"In contrast to him, Knies is a heavy, unfluent, earnest, deep-digging theorist who is continually struggling after new tenable, theoretical conceptions of problems. History does not interest him in the first instance, but the deepening and broadening of economic science. He is not in any sense a collector of historical materials. It is not easy for him to depict individual periods, or particular economic institutions in their historical development. His political economy from the standpoint of the historical method, or as he likes to call it, from the historical point of view, is a collection of monographs on the fundamental theoretical problems, which at the beginning of the 50's were subjects of controversy, and which stood in the foreground of popular interest and in close connection with the important problems of the day. He emphasized not only the connection of political economy with history, but also its connection with geography, philosophy and jurisprudence. His philosophical and legal training determined the characteristics of his work. On the one hand it led him to

¹⁷ *Op. cit.*, pp. 206, 207.

those dogmatic formulas and conceptions which stand in the foreground of his later works on Money and Credit, as well as to the general conclusion that political economy rests and must rest upon historical foundations.

"The most essential thing from his point of view is war against mere abstraction, against premature and false generalization, such as were common among the older economists, and which Knies combated even in more recent writers who were not his principal opponents. He demanded the concrete conception of reality. He strongly felt the psychological bonds which connect groups of phenomena. He had a deep insight into the spirit of nations which has determined the entire course of their history. He was a real follower of Savigny and Niebuhr. Without being himself an historian he was the theoretical founder of historical, psychological, modern German political economy. It seems to me that he more clearly grasped even than did Roscher and Hildebrand, the contrast between this and the political economy of Adam Smith and Ricardo. Theoretically, he is what Frederick List was practically. The connection between the national economy and the other departments of national life, the dependence of economic systems upon the intellectual and material elements of the periods in which they arose, the emphasis upon the collective character of all social phenomena, for him these are the main things. In this connection also he displayed rare foresight, calmness, prudence. He is not so intellectual as Hildebrand, nor so many-sided [versatile], productive and skilful as Roscher. His style is somewhat lopsided and heavy. He can never be popular. And perhaps principally for this reason that he continually digs so deep. Indeed he digs until he comes to the formulation of new fundamental conceptions.

"Perhaps his greatest strength consists in the fact that by virtue of his sense for reality and his careful investigations on the one hand and of his abstract, careful thinking-out of the relations between complex phenomena, he attains a rare breadth of scientific principles. In his later works this quality stands out more prominently than in his history of political economy from the historical standpoint. Belonging as it does to the earlier period of his life, and being constructed out of materials covering the whole range of the subject, this latter work stands in the center of the science while the former are special investigations which relate to parts of the territory and which represent work which goes deeper."

E. GENERAL CHARACTERISTICS OF THE SCHOOL

On account of the differences in the character of the work of Roscher, Hildebrand, and Knies, it is difficult to characterize their contribution as a group to the history of the science. Schmoller¹⁸ put the case as follows: "This much is true, the appearance of Roscher's 'Grund-

¹⁸ *Ibid.*, p. 205.

riss,' his more important monographs and the first volume of his 'Lehrbuch' (1843-1854), of Hildebrand's 'Nationalökonomie der Gegenwart und Zukunft' (1848) and of Knies' 'Politischen Ökonomie von Historischen Standpunkt' (1853) most clearly marked the movement which List began, but which had not yet received its theoretical justification. . . . This movement was away from the abstraction, the individualism, the materialism and the narrow field of the classical economists and towards the study of economic life in the concrete, the organic conception of society, the recognition of the interdependence of all phases of social life, especially of the material and the moral and spiritual, and the inclusion of all facts of economic life within the scope of the science."

It is certainly true that these men had a conception of the science of political economy different from that of the classical school. In their view its scope was broad enough to include all the phenomena of the economic life of mankind; in that of the classical school only certain classes of economic phenomena were included, namely those which reveal the operation of general laws, such for example as price fluctuations, interest rates, wages, rents, the adjustment of production to consumption under conditions of free competition, etc., etc.

According to this latter conception, "a whole mass of economic phenomena of the highest importance and of the greatest interest is left entirely outside. The phenomena of the economic world, as a matter of fact, are extremely varied and changeable. There are institutions and organizations without number, banks and exchanges, associations of masters and unions of men, commercial leagues and co-operative societies. Eternal struggle between the small tradesman and the big manufacturer, between the merchant and the combine, between classes and individuals, between public and private interest, between town and country, is a common feature. A state rises to prosperity again to fall to ruin. Competition at one moment makes it superior, at another reduces its lead. A country changes its commercial policy at one period to reintroduce the old régime at another. Economic life fulfills its purposes by employing different organs that are continually modified to meet changing conditions, and are gradually transformed as science progresses and manners and beliefs are revolutionised."

Of all this, "the mechanical conception tells us nothing. It makes no attempt to explain the economic differences which separate nations and differentiate epochs. Its theory of wages tells us nothing about

the different classes of work-people, or of their well-being during successive periods of history, or about the legal and political conditions upon which that well-being depends. Its theory of interest tells us nothing of the various forms under which interest has appeared at different times, or of the gradual evolution of money, whether metallic or paper. Its theory of profits ignores the changes which industry has undergone, its concentration and expansion, its individualistic nature at one moment, its collective trend at another. No attempt is made to distinguish between profits in industry or commerce and profits in agriculture. The Classical economists were simply in search of those universal and permanent phenomena amid which the *homo oeconomicus* most readily betrayed his character."

"This mechanical view is evidently inadequate if we wish to delineate concrete economic life in all its manifold activity. We are simply given certain general results, which afford no clue to the concrete and special character of economic phenomena."¹⁹

In the study of economic phenomena the historical and classical schools were not looking for precisely the same things, were not traveling toward the same goal. It is true that Roscher, Hildebrand, and Knies did not describe their goal in the same terms and that none of them described it with the precision and clearness that could be desired. Perhaps they did not have the same ultimate goal in mind. Very likely Roscher and Hildebrand talked about laws of development without having in mind the same thing. Knies questioned the existence of such laws, or at any rate the suitability of the term to describe what was attainable. None of these men, however, were in search of the kind of laws formulated by the classical school. Roscher did not seem to doubt the existence or the value of such laws; indeed, he incorporated them in his *Grundlegung*; but in his own special work he was in search of something different from and in addition to these. Hildebrand and Knies were not only in search of something different but had less confidence than Roscher in the correctness and value of the abstractions of the classical school.

The Old Historical School recognized a relationship and an interdependence between the different social sciences which was not emphasized by the classical school and the recognition of which was not involved in its method of procedure. According to the former, each social science views society from a different angle, but the face or aspect it looks at directly gives a particular view of the whole and not simply

¹⁹ Gide and Rist, *op. cit.*, p. 399.

a view of a part. If we think of each social science as treating certain social activities, these historical economists would say that each group of activities so treated are affected and in part determined by all the others. The study of one thus involves the study of all, and each social science must, therefore, use the results of all the others and in turn contribute its results to them.

If, as we should, we recognize the validity and value of the work of the classical economists, that of the Old Historical School may be described as a broadening of the scope of the science. Their most valuable work was in a field the classical economists did not touch, a field the importance of which cannot be questioned. Some of their criticisms of the classical school were valid, but many of them were due to a misconception of its aims and a failure to appreciate the value of pure theory, based largely on analysis of certain classes of economic phenomena and deduction. In the use the classical school, or at least some of its adherents, made of the application of their theories to the solutions of complex social and economic problems, they exposed themselves to criticism of the kind some of the members of the Old Historical School brought against them and in the second quarter of the nineteenth century the increasing importance and complexity of such problems invited a reaction from which the science has profited through the broadening of its scope and the improvement of its methods.

There is a place in the science both for pure theory and for generalizations based upon historical research, and it is to the Nationalists and the Old Historical School that we owe an adequate appreciation of the latter.

CHAPTER XIV

THE OPTIMISTS

A. INTRODUCTION

A reaction against certain features or doctrines of the classical school, particularly those for which Ricardo and Malthus were primarily responsible, was represented by Henry C. Carey and Claude Frédéric Bastiat. Unlike the Nationalists and the Old Historical School, these men did not object to the methods of the classical economists, or to the scope of the science as they conceived it, but they did object to the Ricardian doctrine of distribution, to the theory of progress deduced from it, and to the Malthusian doctrine of population.

In substance the doctrines these men proposed as substitutes for those of Ricardo and Malthus were identical. Carey's were first published and a charge of plagiarism was brought against Bastiat, but probably on insufficient grounds. It seems best to regard them as independently developed, and in that case it is interesting to inquire why a reaction of this kind should have appeared almost simultaneously in the United States and France, the one voiced by a domineering, autocratic type of man who believed ardently in protection and the other by a modest, almost peasant type who believed just as ardently in free trade.

An explanation is suggested by the conditions with which each man was confronted in his own country. These conditions were very different, but they produced in each case the same reaction against Ricardianism and Malthusianism. The United States was a new country with vast, undeveloped natural resources and a relatively small but rapidly growing population. The general level of well-being was high, and opportunities for profitable enterprise were open and available to everybody. Increasing capital and increasing population in this country had always resulted, and to Carey's generation seemed certain in the future to result, in increasing prosperity for all classes. There was no visible evidence that they ever had produced or were likely ever to produce the consequences predicted by Ricardo and Malthus. In this country, indeed, plain facts seemed to prove these men wrong.

In France there was not such a volume of undeveloped natural resources; population and capital were much greater, both absolutely and in proportion to these resources; the level of well-being was not so high; and there was no such record of prosperity in the past and no such prospects for the future. Conditions, indeed, might be thought to verify the doctrines of Ricardo and Malthus. There was another factor in the situation there, however. Socialistic agitation was rampant and threatening. Its protagonists accepted much of the Ricardian reasoning and urged that the only remedy was a radical change in the fundamental institutions of the existing social order. For a person like Bastiat, who believed that in its fundamentals the existing social order was best and who regarded socialism as a dangerous menace, the problem was to convince the public of the advantages of the present order. In his attempts to accomplish this result he found the same difficulties with the Ricardian and the Malthusian doctrines as did Carey, and the same substitutes for them.

B. HENRY C. CAREY

Henry C. Carey was born in Philadelphia in 1793, the son of Mathew Carey, the publisher, book-dealer and ardent protectionist, mentioned in our accounts of Daniel Raymond and Frederick List. He received his education chiefly in his father's business, where as a reader of manuscripts offered for publication he learned to analyze and criticize other people's ideas. In 1821 he became head of his father's firm and served in that capacity until 1835, when he retired to devote himself to writing and public work. He visited Europe in 1825, 1857, and 1859 and there met John Stuart Mill, Cavour, Humboldt, Liebig, Chevalier, Ferrara, and Bergfall, acquaintance with some of whom he continued in after years by correspondence.

Endowed with a vigorous and impressive physique, a dominating personality, a good mind, ample means, and a love of social intercourse and the applause of his fellow-men, Carey became a prominent figure in his native city and state in the middle years of the last century, and through his voice and pen, which were very active in all matters of public interest, he exerted considerable influence on public opinion and some on the economists of his day.¹

His literary output was large, the following publications being most noteworthy: *Essay on the Rate of Wages* (1835), *The Principles of*

¹ For a description of his personality and methods of work see Jenks's *Henry C. Carey als Nationalökonom*, pp. 23-25.

Political Economy (1837-1840), *The Past, the Present and the Future* (1848), *The Harmony of Interests* (1852), *The Principles of Social Science* (1858-1859), and *The Unity of Law as Exhibited in the Relation of Physical, Social, Mental and Moral Science* (1872).

His views on economic subjects and especially his attitude toward the doctrines of the classical school changed considerably between the date of his earliest writings and about the middle of the century. In the first two of the above-mentioned books his dissent from these doctrines does not appear to be radical, but, beginning with *The Past, the Present and the Future*, it is wide and uncompromising, his criticisms of Malthus and Ricardo being especially vigorous.

His leading ideas are developed at great length and repeated over and over again in his later books. They may be summarized under the heads of value, distribution, the law of life, and the harmony of nature and protection.

He connected the concept of value with the consciousness of resistance to be overcome in the acquisition of the means of satisfying wants. "The cause of the existence in the human mind of the idea of value," he said, ". . . is simply our estimate of the resistance to be overcome before we can enter upon the possession of the thing desired."² Value, therefore, increases and diminishes in proportion as such resistance increases and diminishes. In accordance with this principle he concluded that the value of things steadily falls in a progressive community because such progress implies a steady increase in man's power over nature and a corresponding decrease in the resistance nature makes to the acquisition of the means of satisfying wants.

The explanation of the ratio of exchange he found in the principle of the reciprocity of service. He imagined Crusoe making a trip about his island and finding a person similarly situated who had better arrows than he but no boat. "Here," he said, "we have the circumstances preliminary to the establishment of a system of exchanges. The first could obtain more meat in a day, by the indirect process of catching fish to be exchanged with his neighbor, than he could in a week with his inefficient bow and arrows; and the second could obtain more fish by the devotion of a day to the shooting of birds than he could in a month while deprived of the hook and line; and by the process of exchange the labor of both may be rendered more productive. Each, however, seeking to give day's labor for day's labor, refuses to permit the other to obtain a greater amount of service than he gives in re-

² *Principles of Social Science*, 1888 ed., I, 148.

turn. . . . Value in exchange is, therefore, determined by precisely the same rules that had governed each of the parties when working by himself." ³

From these principles Carey developed the law that commodities exchange for each other in proportion to their costs of *reproduction*. Since their value tends constantly to fall on account of the increasing power of man over nature, in each succeeding period the cost of production is less than it was in the preceding and on this account no one would be willing to give for a commodity produced in the past more than it would cost to reproduce it at the present time.

The principle of exchange on the basis of the equality of services mutually rendered is also in harmony with this law, since the cost of reproduction of the exchanged commodities is the exact measure of the service each exchanger renders to the other.

Carey was aware that this law implies equal power to produce on the part of the exchangers. He said ⁴:

"In order that quantity of labor may be a measure of value, there must be an equal power to command the services of nature. The product of two carpenters in New York or Philadelphia can generally be exchanged for that of two masons; and that of two shoemakers will not vary much in value from that of two tailors. The time of a laborer in Boston is nearly equal in value to that of another in Pittsburgh, Cincinnati, or St. Louis; but it will not be given for that of a laborer in Paris or Havre, the latter not being aided to the same extent by machinery, and being therefore more dependent on mere brute force. The value of labor, as compared with that of the commodities required for man's support, varies to a small extent in the various portions of France, as is the case with that of the different parts of England and of India; but between the man of Paris and his competitor of Sedan, or Lille, the variation is trifling, compared with that which exists between a workman in any part of France, and one in the United States. The circumstances which affect the power of man over nature in Paris and Lille are, in a great measure, common to all the people of France; as are those which affect that of a workman in Philadelphia to all the people of the Union. Here we find the same effect at the same time, but at different places, that has before been shown to be produced at the same place, but at different times. The improved machinery of our colonists having increased their powers, their third year was more valuable than that of the two previous ones had been; and in like manner a single year's labor in the United States is

³ *Principles of Social Science*, I, 150.

⁴ *Ibid.*, I, 155.

worth more than that of two in France. Labor grows in value in the direct ratio of the substitution of mental for muscular force, of the peculiar qualities by which man is distinguished from the animal, for those which he possesses in common with so many animals; and in the same precise ratio does the value of all commodities decline."

Carey applied this doctrine of value to land as well as to manufactured goods and raw produce. "The value of land," he said,⁵ "is a consequence of the improvement which labor has effected upon it," and since the cost of production of these improvements constantly falls in a progressive community, land never sells for the actual cost of the improvements which have been put upon it. In proof of this conclusion he made the following statements⁶:

"Twelve years since, the annual value of the land and of the mines of Great Britain, including therein the share of the Church, was estimated by Sir Robert Peel at £47,800,000 which, at twenty-five years' purchase, would give a principal sum of nearly twelve hundred millions of pounds. Estimating the wages of laborers, miners, mechanics, and those by whom their labors are directed, at 50 pounds per annum each, the land would, then, represent the labors of twenty-four millions of men for a single year; or of one million for twenty-four years.

"Let us now suppose the island reduced to the state in which it was found by Cæsar; covered with impenetrable woods, (the timber of which is of no value because of its superabundance), and abounding in marshes and swamps, heaths and sandy wastes; and then estimate the quantity of labor that would be required to place it in its present position, with its lands cleared, levelled, enclosed, and drained; with its turnpikes and railroads; its churches, school-houses, colleges, court-houses, market houses, furnaces, and forges; its coal, iron, and copper mines, and the thousands and tens of thousands of other improvements required for bringing into activity those powers for the use of which rent is paid; and it will be found that it would require the labor of millions of men for centuries even although provided with all the machinery of modern times, the best axe and the best plough, the steam engine, the railway, and its locomotive."

While Carey frequently made use of the phrase "value of labor," he did not apply his cost-of-reproduction principle directly to labor. He regarded the laborer as one of the two claimants to a share in the wealth produced, the other being the owners of capital, including under this head landlords. The value of land being in his view determined on the same principle as that of other things, there is no

⁵ *Ibid.*, I, 175.

⁶ *Ibid.*, I, 164-166.

reason for putting landowners in a class by themselves, when the explanation of their share in the distribution of wealth is under consideration.

Proceeding on the assumption that the entire product of society is distributed between laborers and capitalists, Carey worked out his theory of distribution in the following manner ⁷:

"Little as was the work that could be done with the help of an axe of stone, its service to the owner had been very great. It was, therefore, clear to him, that the man to whom he lent it should pay him largely for its use. He could, too, as we readily see, well afford to do so. Cutting, with it, more wood in a day than, without it, he could cut in a month, he would profit by its help, were he allowed but a tenth of his labor's products. Being permitted to retain a fourth, he finds his wages much increased, notwithstanding the large proportion claimed, as profit, by his neighbor capitalist.

"The bronze-axe being next obtained, and proving far more useful, its owner, being asked to grant its use, is now, however, required to recollect, that not only had the productiveness of labor greatly increased, but the quantity required to be given to the production of an acre had also greatly decreased, capital thus declining in its power over labor, as labor increased in its power for the reproduction of capital. He, therefore, limits himself to demanding two-thirds of the price of the more potent instrument, saying to the woodcutter: You can do twice as much work with this, as you now do with our neighbor's stone-axe; and if I permit you to retain a third of the wood that is cut, your wages will still be doubled. This arrangement being made, the comparative effects of the earlier and later distributions are as follows:

	<i>Total product</i>	<i>Laborer's share</i>	<i>Capitalist's share</i>
First	4	1	3
Second	8	2.66	5.33

"The reward of labor has more than doubled, as a consequence of the receipt of an *increased proportion* of an increased quantity. The capitalist's share has not quite doubled, he receiving a *diminished proportion* of the same increased quantity. The position of the laborer, which had, at first, stood as only one to three, is now as one to two; with great increase of power to accumulate, and thus to become himself a capitalist. With the substitution of mental for merely physical power, the tendency to equality becomes more and more developed."

⁷ *Principles of Social Science*, III, 111 and 112.

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In a similar manner he explained the effects of the introduction in succession of axes of iron and steel, exhibiting the results as follows:

	<i>Total</i>	<i>Laborer</i>	<i>Capitalist</i>
First	4	1	3
Second	8	2.66	5.33
Third	16	8	8
Fourth	32	19.20	12.80

He next proceeded to show that what is true of capital invested in axes holds of capital invested in any other form, first using the building of houses as an illustration. The first house costs a relatively large amount of labor, but improvements steadily reduce the cost of subsequent ones. The value of houses, therefore, steadily falls and with it the share the owner can exact in the form of rent. He also referred to the steady fall in the rate of interest as evidence of the truth of the proposition he is defending.

He concluded this part of his exposition with the following statement:

"Such is the great law governing the distribution of labor's products. Of all recorded in the book of science, it is perhaps the most beautiful, being, as it is, that one in virtue of which there is established a perfect harmony of real and true interests among the various classes of mankind. Still further, it establishes the fact, that, however great may have been the oppressions of the many at the hands of the few, however large the accumulations resulting from the exercise of the power of appropriation, however striking the existing distinctions among men, all that is required for establishing, everywhere, perfect equality before the law, and for promoting equality in social condition generally, is the pursuit of a system tending to establish in the highest degree the power of association and the development of individuality, that system being found in the observance of perfect respect for the rights of others, that securing the maintenance of peace, and promoting the growth of wealth and population, both abroad and at home. The more rapid the increase of man's control over nature, the greater must be the tendency towards the establishment of power to direct himself, wealth and power traveling thus together." ⁸

Constant improvements in the costs of producing manufactured articles tend, according to Carey, to bring nearer and nearer together the prices of raw materials and finished products, and hence, "The

⁸ *Ibid.*, III, pp. 113 and 114.

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proportion of labor's products demandable in the form of profits, interests, freights, or rents, becomes constantly smaller."

This process of reasoning led him to the general conclusion, expressed in the following quotation,⁹ that the interest of all classes and of all portions of society are in perfect harmony: "Throughout the process above described, we mark a perfect harmony in the interests of the various portions of society, the laborer profiting largely by the proximity of the owner of the canoe, and the latter doing the same by that of the man who is both willing and able to use it. Neither profits at the expense of the other, each obtaining a larger quantity of commodities, and both being enabled to devote more of time, and of mind, to improvement of the machinery by help of which to command the use of nature's services, and thus obtain increase of wealth. Both are equally interested in every measure looking to the maintenance of peace, and in the adoption of a policy tending to secure the most rapid circulation of services and products, and the greatest economy of labor, the highest power of association, the most perfect development of individuality, and the largest and most unrestricted commerce with their fellowmen."

Carey did not believe that the harmony of interests and the steady improvement in the condition of mankind depicted in the above exposition was or ever would be threatened by a too rapid increase in population. He denied the existence of a tendency of population to increase faster than the food supply, such as Malthus believed he had discovered, maintaining that such a result was prevented by the operation of natural laws. He summarized these laws as follows¹⁰:

"The general law of life, throughout all the classes, orders, genera, species, and individuals, may thus be stated:

"The nervous system varies directly as the power to maintain life:

"The degree of fertility varies inversely as the development of the nervous system—animals with larger brains being always the least, and those with smaller ones, the most prolific:

"The power to maintain life, and that of procreation antagonize each other—that antagonism tending perpetually towards the establishment of an equilibrium."

His conception of the probable result of the operation of this "general law of life" is expressed in the following passage¹¹:

⁹ *Principles of Social Science*, III, p. 120.

¹⁰ *Ibid.*, III, p. 302.

¹¹ *Ibid.*, III, 304 and 305.

"Looking, now to the constant advancement, and ultimate perfection, of civilization, what is it we may expect from the operation of the self-adjusting law, whose existence we thus have sought to establish? All the facts of the past tend to prove, that mere muscular labor, unenlightened toil, accompanied by a general feeling of security, and unattended, therefore, by those cares which stimulate to action the nervous system of the savage, favor fertility, or permit it in the highest degree known to experience—that fertility being attended by great mortality. Civilization tending, however, towards the substitution of the natural forces for human labor, the life of the masses will not, in the future, be subjected to the lowest forms of drudgery—the necessary result of this being, either that physical vigor will decline, and thus reduce fertility, or, that the diversion of energy from the muscular to the nervous system, will serve to diminish the ratio of procreation. Such result must be obtained, let the change of conditions be in whichsoever it may happen, of these directions. It is, however, to the latter of these changes, that we tend, amelioration in our societary condition being the consequence of those improvements which tend to enlarge the sphere of intellectual activity, and stimulate the nervous system. The more society tends to take its natural form, the more does mind mingle with muscle in the labor of producing and converting the commodities required for man's support—all these minglings tending, in happy proportion, towards diminution of fertility, and towards increase in the power for the maintenance of human life. Such being the case, we have here a self-acting law that, while explaining the past, foreshadows the future, enabling us to see it, in the distance, working its way steadily and progressively, towards the accomplishment of ends whose beneficence is in perfect harmony with our ideas of the supreme wisdom, justice and mercy, of the great Being by whom the laws were made."

This law of harmony which Carey thought he saw in operation in the economic world he believed to be but one form of "manifestation of a law of nature, the operation of which he depicted in the following formula ¹²:

	<i>Takes in</i>	<i>Produces</i>
"The Plant	{ Phosphoric acid, lime, common and other salts from the soil	{ Perfect substance of plants
"The Animal"	{ a. Parts of plants	{ Perfect bone, blood and tissues
	{ b. The bone and tissues, with oxygen from the lungs	{ Phosphates and other salts in the excretions

¹² *Ibid.*, I, 82.

	<i>Takes in</i>	<i>Produces</i>
"The Soil	{ Excretions of animals, dead animals and plants.	{ Phosphoric acid, lime, etc."

Plants, animals, and the soil thus act and react upon each other in such a manner as to produce a perfect cycle of harmonious operations. Man is but a part of the animal phase of these operations and is thus a part of the machinery through which this harmonious action is accomplished. Unlike other animals he possesses the capacity to manipulate the natural forces residing in plants, other animals, and physical nature. In his primitive condition his power in this direction but little exceeded that of other animals, but endowed as he is with peculiar gifts that power has steadily and naturally grown, and with this growth civilization has developed.

According to Carey, the peculiar gifts with which man is endowed are the *social instinct*, *individuality*, *responsibility*, and *capacity for progress*. The social instinct makes him desire association with his fellows. Individuality makes each person different from every other and thus capable of being of assistance to others. Having the power to aid, responsibility makes him desire to exercise that power, and the capacity for progress makes him desire to improve his own condition. This combination of qualities ensures association or coöperation between men wherever conditions render such association possible, and association, according to Carey, is the means through which man acquires power over nature.

According to Carey, then, the creation of conditions favorable to association between men is necessary to progress. As a means to this end he advocated protection. The reasoning by which he connected this policy with association seems to be about as follows: In order to associate, men must be in close proximity to each other; the bringing together of producers and consumers, and of different groups of producers who need each other's products promotes proximity; protection accomplishes this result by creating a home market for manufactures, thus promoting the establishment of factories and their location near the sources of the raw products they must use and near the people who are to consume their output.

Carey used other arguments, among them that protection reduces the costs of transportation and diminishes the machinery of exchange. In this connection he drew a distinction between trade and commerce

and expounded at length the disadvantages of what he called "trade." The following passage illustrates his method of reasoning ¹⁸:

"The words commerce and trade are commonly regarded as convertible terms, yet are the ideas they express so widely different as to render it essential that their difference be clearly understood. *All* men are prompted to associate and combine *with* each other, to exchange ideas and services with each other, and thus to maintain COMMERCE. *Some* men seek to perform exchanges *for* other men, and thus to maintain trade.

"Commerce *is the object* everywhere desired, and everywhere sought to be accomplished. Traffic is the instrument used by commerce for its accomplishment, and the greater the necessity for the instrument, the less is the power of those who require to use it. The nearer the consumer and the producer, the more perfect the power of association, the less is the necessity for the trader's services, but the greater are the powers of those who produce and consume, and desire to maintain commerce. The more distant they are, the greater is the need of the trader's services, and the greater is his power, but the poorer and weaker become the producers and the consumers, and the smaller is the commerce.

"The value of all commodities being the measure of the obstacles standing in the way of their attainment, it follows necessarily that the former will increase with every increase of the latter, and that every step in that direction will be attended by a decline in the value of man. The necessity for using the services of the trader constituting an obstacle standing in the way of commerce, and tending to enhance the value of things, while depressing that of man, to whatever extent it can be diminished, to the same extent must it tend to diminish the value of the first, and increase that of the last. That diminution comes with the growth of wealth and population, with the development of individuality, and with the increase in the power of association; and commerce grows always in the direct ratio of its increase of power over the instrument known as trade, precisely as we see it do in reference to roads, wagons, ships, and other instruments. The men who buy and sell, who traffic and transport, desire to prevent association, and thus to preclude the maintenance of commerce; and the more perfectly their object is accomplished the larger is the proportion of the commodities passing through their hands, retained by them, and the smaller the proportion to be divided between the producers and the consumers."

¹⁸ *Principles of Social Science*, I, 210 and 211.

C. FRÉDÉRIC BASTIAT

Claude Frédéric Bastiat,¹⁴ the son of a merchant of Bayonne, France, was born in 1801 and died in 1850. His father having died when Frédéric was but nine years of age, the son was raised and educated by an aunt and after finishing school entered the business of his uncle. In 1825 he inherited from his grandfather a landed estate on which he lived quietly until 1844.

During these years his interests were intellectual as well as agricultural. With a friend named Coudroy he studied and discussed philosophy, history, and political economy and occasionally wrote pamphlets on questions of local interest, among them *le Fisc et la vigne* in 1841, *Mémoire sur la question vinicole* in 1843, and *Mémoire sur la répartition de l'impôt foncier dans le département des Landes*. His mastery of the English, Italian, and Spanish languages gave him a wide range which he utilized in obtaining first-hand information about matters that interested him in the life of other European countries, particularly of England.

His reading of the classical economists and discussions with his friend developed in him a strong belief in individualism as the guiding principle in social and economic affairs. He believed that government should be strong in order to render the protection society needs but that it should leave to the individual the widest possible scope for his activities and aspirations. He early concerned himself also with the application of the principle of individualism to international commerce, having prepared in 1829 a manuscript *sur le régime restrictif*, which, however, the revolution of the following year prevented his publishing, and in 1834 having published *Réflexions sur les pétitions de Bordeaux, Le Havre et Lyon concernant les douanes*.

The conviction that freedom of commerce, which in his early writings appeared as more or less of a utopia, might be attained very soon in at least one country came as a result of his observation of the agitation for the abolition of the corn-laws then in progress in England. He followed this agitation as it was revealed in the pages of the *London Globe and Traveller*, to which he was a regular subscriber. Through discussions in a little club of which he was a member he learned that this movement across the Channel was very imperfectly

¹⁴ The following details concerning Bastiat's life were taken from R. De Fontenay's *Notice sur la vie et les écrits de Frédéric Bastiat*, introducing the edition of Bastiat's works published by Guillaumin et Cie. in Paris in 1855.

understood in France and very incorrectly described in the French press, and he decided to make an effort to correct the false impressions that were current. To this end he prepared and sent to the *Journal des économistes* an article entitled "De l'influence des tarifs français et anglais sur l'avenir des deux peuples." It was accepted and published in October, 1844, and was received with such favor that the editor of this journal encouraged Bastiat to write more on the same subject.

Reacting to this encouragement he devoted himself to his new task with ardor and enthusiasm. His convictions were strong, and he felt that the cause was worthy of his best efforts. His method was to expose the fallacies in the arguments of protectionists by putting them to the test of fundamental principles. To this end he wrote a number of articles, most of which were first published in the *Journal des économistes*. He also wrote a history of the free-trade league organized in England by Cobden, which he published under the title "Cobden et la ligue ou l'agitation anglaise pour la liberté des échanges." In the preparation of this work he began a correspondence with Cobden which resulted in strong friendship and active cooperation between the two men. This book brought him the distinction of a corresponding membership in the Institute of France and a considerable reputation. In order to superintend its publication he visited Paris, where he was cordially received by economists, and soon after visited England, where he met Cobden and other members of the free-trade league.

A great change in his life came in 1846. Heretofore he had lived for the most part quietly at Mugron with occasional trips into the world outside, most of them taken in the two years immediately preceding. Now he was to become an active propagandist with headquarters at Paris. The beginning of this change dates from February, 1846, when he organized a free-trade association at Bordeaux. From there he went to Paris on a similar errand. Here he consulted journalists and government officials, addressed meetings of merchants, and wrote incessantly. He succeeded in organizing a central committee or commission for the spread of free-trade agitation throughout France. He became secretary of this commission and founded a weekly journal to be used as its organ of publicity. In the performance of the duties thus assumed he made addresses in the leading cities of France, conducted a regular course of instruction in one of the halls of Paris, and wrote many articles and letters. His writing was brilliant and his speech-making persuasive, but the progress of the cause he was promoting was slow,

and before any considerable portion of the public had become converted to free trade, the revolution of February, 1848, turned his activities in another direction.

This revolution was social as well as political and brought to the front the radical elements of French society. Socialistic experimentation was indulged in by the new government, and socialistic doctrine was preached with great vigor and apparent success. Bastiat entered the lists against these new vagaries and proceeded to expose the fallacies of socialism with as much vigor and acumen as he had previously shown in exposing those of protectionism. His sphere of activity in this new field was enlarged by his election as a deputy to the Constituent Assembly and later to the Legislative Assembly. In both these bodies he was much respected and exerted great influence in spite of the fact that he was handicapped by the ravages of the disease which finally caused his premature death and which rendered public speaking difficult and only an occasional possibility. He made his pen compensate for the deficiencies of his voice, however, by writing pamphlets on nearly every phase of the current agitation and particularly in reply to the doctrines of the leading socialists. Against the doctrine of Louis Blanc he wrote *Propriété et loi*; against that of Considerant, *Propriété et spoliation*; against that of Leroux, *Justice et Fraternité*; against Proudhon, *Capital et rente*. In reply to the so-called "Comité Mimerel" he wrote *Protectionism et communism*; against the paper-money advocates, *Mauduit Argent*; and against one of the Catholic manifestos, *l'État*.

In all this controversy his attitude was calm and dignified and in spite of the incisiveness of his criticism he showed appreciation of the motives of his adversaries. He gave them full credit for a desire to promote the well-being of society, but wished simply to show that they were on the wrong path and, if possible, to set them right.

Throughout these years of controversy the need for a clear formulation and exposition of general principles had grown upon him. He had always used such principles as the means of attacking what he regarded as error and felt that the failure to grasp them was the chief cause of social and economic heresy. It is probable that he also felt the need of clarifying his own thought. It is evident also that he was not satisfied with the expositions that had previously been made. He set to work upon this new task at a time when his bodily powers were greatly impaired, and it was consequently never completed. A good beginning was made, however, and the results published in a volume entitled

Harmonies économiques. His plan contemplated another volume to be called *Harmonies sociales*. The ideas expressed in this book were foreshadowed in many of his pamphlets but never fully developed. Indeed, it is highly probable that they developed in his own mind in the process of writing. Certain it is that previous to the publication of this book they had not been fully grasped or appreciated by his friends and coworkers, to say nothing of his opponents.

The basic principle of Bastiat's economic and social philosophy is that individual liberty, if allowed free scope, will secure for mankind the maximum of economic and social well-being. On this doctrine he was in agreement with Adam Smith, and it was his aim in the *Harmonies économiques* to show in detail how this principle operates throughout the economic structure in the field of distribution as well as in that of production. To this end he attempted to show that the so-called laws sponsored by Ricardo and Malthus which revealed fundamental conflicts of interest between producers and consumers and between different classes of producers were not real and to indicate what the real ones are.

He began with value, the essence of which he found in the services people render each other in exchange. "The idea of value," he wrote,¹⁵ "first entered into the world when one man saying to his brother, Do this for me and I will do that for you, they fall into an agreement, for then for the first time one could say these two exchanged services are equal to each other, are worth each other." He also associated effort with the idea, as did Carey, but only because it is the basis of service. It is only because effort is required in the production of a good or the performance of an act that it is possible to render service through exchange, the service, namely, of saving effort.

This idea of rendering service by saving effort differentiates Bastiat's doctrine from Ricardo's and brings it into harmony with Carey's, with which, indeed, it was identical. It is not the labor actually employed in producing a thing as Ricardo held, he argued, that determines its value in exchange, but the labor it saves the person who acquires it, and this person values the commodity thus acquired because it renders him the service of sparing him the effort that would have been required to produce it. "I have attempted to show," he said,¹⁶ "that value is based not so much upon the amount of labor which a thing has cost

¹⁵ Frédéric Bastiat, *Harmonies of Political Economy*, translated by Patrick James Stirling (London, 1860), I, 108.

¹⁶ Quoted by Gide and Rist, *A History of Economic Doctrines*, translated by Smart and Richards, p. 332 note.

the person who made it, as upon the amount of labor it saves the persons who obtain it. Hence I have adopted the term 'Service,' which implies both ideas." Bastiat believed that this conception of value contained all the elements of truth and eliminated the error contained in all competing conceptions. "Every solution propounded by economists—utility, scarcity, difficulty of acquisition, cost of production, labour—is included within this conception of service, and 'economists of all shades of opinion ought to feel satisfied.' 'My decision is favourable to every one of them, for they have all seen some aspect of the truth; error being on the other side of the shield.'" ¹⁷

Correlative with the conception of value and of equal importance in Bastiat's thinking was his conception of property, which he defined as follows ¹⁸: "Property is the right of applying to one's self or of appropriating to one's self his own efforts, or of not yielding them to another except in return for a cession of equivalent efforts. . . . Property, therefore, attaches only to human efforts and not to nature's services which are free gifts."

"Every man," he says, ¹⁹ "enjoys gratuitously all the utilities furnished or elaborated by nature on the condition of taking the trouble to collect them or of rendering an equivalent service to those who render him the service of taking this trouble for him. There are here two facts combined, welded together, although distinct in their essence. There are natural gifts, gratuitous materials, gratuitous forces; this is the domain of common property. There are human efforts consecrated to the collection of these materials, to the direction of these forces, efforts which are exchanged, which have value, which compensate each other; here is the domain of property. In other terms, with regard to each other we are not the proprietors of the utility of things but of their value, and value is only the appreciation of reciprocal services. Property and common property are two ideas correlative to those of onerousness and of gratuity, whence they proceed. That which is gratuitous is common, for each one enjoys it and is admitted to its enjoyment without conditions; that which is onerous is appropriated, because the pain to be taken is the condition of the satisfaction as the satisfaction is the reason for enduring the pain. The exchange which intervenes is accomplished by the valuation of two pains or two services. Utility remains all the time the same."

¹⁷ Gide and Rist, *op. cit.*, p. 333.

¹⁸ *Harmonies of Political Economy*, p. 207.

¹⁹ *Ibid.*, p. 194.

In another place he wrote,²⁰ "God has put materials and forces at the disposition of men. In order to possess one's self of these materials and these forces, trouble is necessary and pain must be taken. If no pain is necessary no one would freely consent to purchase from another by means of effort that which he could gather without effort from the hands of nature. Here neither services, nor exchange, nor value, nor property are possible. If a pain is necessary, in justice it ought to fall upon the one who has the right to experience the satisfaction; whence it follows that the satisfaction ought to belong to the one who takes the pain; hence the principle of property."

From these doctrines Bastiat deduced the laws of harmony which he believed were operating throughout the economic world. His reasoning was substantially like Carey's. Progress in the form of improvements in production, such as improved tools, machines, better coöperation and coördination of efforts, and advancement in the sciences and industrial arts, diminishes the human efforts required in the adaptation of nature's gifts to the satisfaction of wants and thus constantly diminishes or narrows the domain of property. As Bastiat put it,²¹ "Progress insures a constant increase, both absolute and relative, of the goods and services which are free to all and a relative decrease of those in which the right of property inheres and for which payments must be made."

On the basis of this reasoning Bastiat denounced the Ricardian doctrine of distribution. He denied that rent is the price paid for the original and indestructible powers of the soil, claiming on the contrary that it is paid for man's, not nature's, part in the agricultural process. Neither, he said, is there the opposition of interests between the landlord and the other classes which Ricardo's doctrine involves. Landlords, capitalists, and laborers, he asserted, are alike benefited and injured by the same things. They all share in the benefits of progress, but not equally. The laborer gets the lion's share.

He illustrated this conclusion by the use of a numerical table after the manner of Carey (see above, p. 237), and compared what a day's labor would yield in the form of satisfactions to a laborer in his time and at the beginning of things, concluding that in the matter of food it would amount to probably forty times as much, and in other things in a ratio as great or greater.

While the domain of private property thus tends relatively to decrease and that of common property to increase, Bastiat held that the

²⁰ *Ibid.*, p. 197.

²¹ *Ibid.*

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former would never disappear, as Proudhon claimed that it would. Because each effort of man tends to bring larger returns, it does not follow that his efforts will ever cease.

There are two obstacles²² to the perpetual operation of these laws of harmony which Bastiat was unable satisfactorily to dispose of, namely the limitation of the supply of land and overpopulation. He was obliged to admit the possibility of trouble from these sources, but he believed that property in land widely distributed would keep population within proper limits. The contingency that it might not be considered remote and one with which political economy need not concern itself any more than physics needs to concern itself with the possibility that some time all the valleys may be filled up and the mouths of the rivers be on a level with their sources.

²² *Harmonies of Political Economy*, II, Ch. XVI.

CHAPTER XV

THE SOCIALISTS

An Introduction and an Account of Sismondi

A. THE MODERN SOCIALISTIC MOVEMENT

The modern socialistic movement immediately followed the French Revolution and the industrial revolution of the closing years of the eighteenth century and seems to have been in part at least a result of them. Radical theories regarding social matters seem to be a natural product of political and social upheavals, and in this case the reasons for a close connection between the two are quite evident.

In France the Revolution of 1789 destroyed the characteristic institutions of the old régime and opened new outlooks to the French people in several directions. It promised them greater economic prosperity and political power and taught them that social institutions are subject to change and control through popular initiative and action. Great expectations and a feeling of hopefulness succeeded the gloom and depression of the old régime. The belief that social ills are the product of bad government and can be eradicated and that social relations are capable of a high degree of perfection was spread abroad and was fostered by writers of high popular repute.

The industrial revolution enormously increased productive power, particularly in England and France, and opened up a brilliant prospect of economic prosperity, but it was accompanied by conditions which prevented the masses from benefiting from the increasing wealth to the degree they desired and had reason to expect. The chief of these was the development of a class solely dependent upon wages as a means of livelihood which, in the transition from the old economic régime to the new, suffered from low wages, long hours of work, unsanitary working and living quarters, and excessive labor of women and children.

Adam Smith's *Wealth of Nations* taught that the interests of individuals and those of society are in essential harmony and that these interests are promoted by the laissez-faire policy of government and the

play of self-interest. No essential modification of this philosophy was introduced by Ricardo and Malthus, but the former pointed out a conflict of interests between the landlord and other classes and the latter taught that the condition of the laboring class depends primarily upon the willingness of wage-earners to control their numbers. In view of the population tendencies of the time and the rapid increase of rents, the outlook thus opened up was gloomy and, to people inspired by the optimism of the French Revolution, discouraging and disheartening.

It was natural that in France, at any rate, where the optimistic philosophy of the period of the Revolution had most influence, attempts should be made to reconcile individual liberty and economic well-being. Of these there were two, the conservative one represented by Bastiat, who built upon the foundations laid by Adam Smith and the economists and tried to purge the new science of the pessimistic tendencies introduced by Malthus and Ricardo, and the radical one represented by the Socialists, who saw hope only in a fundamental transformation of economic and social institutions.

B. SISMONDI

There were several phases of the socialistic movement in France, of which one was represented by Jean Charles L. Simonde de Sismondi (1773-1842), the descendant of an Italian family which was driven from Pisa in 1524 and took refuge in France. After the revocation of the Edict of Nantes, it migrated to Geneva, where Jean Charles was born May 9, 1773. After a period of study at the Collège de Genève and with a business concern in Lyon and several years' residence in Italy, he began the career of a scholar and writer, which he followed during the remainder of his life and in which he gained distinction and renown. During the second half of his life he enjoyed the acquaintance and friendship of the most distinguished people of France, including Madame de Staël, Necker, Benjamin Constant, Cuvier, and Napoleon. In 1804 and 1808 he accompanied Mme. de Staël on trips through Italy and Germany, and, when Napoleon returned from Elba in 1815, he became convinced of his sincerity and liberalism and defended his cause.

His literary output was enormous, consisting chiefly of historical works. Between 1807 and 1818 he published a *Histoire des républiques italiennes* in sixteen volumes; in 1811 a course of lectures delivered at Geneva on the literatures of Central Europe in four volumes; and beginning with 1815 and continuing to the end of his life, he published

a history of the French people in twenty-nine volumes, two volumes being added after his death, edited by a friend from unfinished manuscript. His writings on economic topics began in 1801 when he published a *Tableau de l'agriculture en Toscane*. In 1803 appeared in two volumes his *De la richesse commerciale, ou principes d'économie politique appliqués à la législation du commerce*; in 1819, also in two volumes, his *Nouveaux principes d'économie politique ou de la richesse dans ses rapports avec la population*; and in 1837 and 1838, under the title, *Études sur l'économie politique*, a collection of essays that had previously appeared in the *Revue encyclopédique* and the *Revue mensuelle d'économie politique*. In 1836 he expounded his ideas on politics in a book entitled *Études sur la constitution des peuples libres*.

Chiefly as a result of his historical studies, his views on the subject of economics changed greatly in the period between the publication of his *De la richesse commerciale* and his *Nouveaux principes*. In the first he was in accord with the doctrines set forth in *The Wealth of Nations*, but in the second he dissented from them radically. In the preface to the latter he wrote: "During the fifteen years since I wrote *Richesse commerciale*, I have read very few books on political economy, but I have not ceased to study facts. Some of these appeared to me to be opposed to the principles I had adopted."¹

The facts which he was unable to harmonize with the doctrines of Adam Smith were those of the economic history of modern Europe, particularly in his own generation, such for example as the development of the factory system and its attendant consequences, especially the condition of the laboring classes, and economic crises. These seemed to him clearly to indicate a lack of harmony between the great increase in the production of wealth that had accompanied the introduction of machinery and the factory system and the well-being of society. He was, therefore, led to question the essential harmony between the interests of individuals and those of society, one of the fundamental doctrines of *The Wealth of Nations*, and to search for principles more in harmony with the facts he had discovered. The results of his efforts were expressed in his *Nouveaux principes*, the leading ideas of which may be grouped under the heads (a) the purpose and method of political economy, (b) the effects of liberty and competition, and (c) the relations of the state to industry.

¹ J. C. L. Simonde de Sismondi, *Nouveaux principes d'économie politique* (Paris, 1819), I, iii.

Adam Smith and his followers regarded wealth as the subject-matter of political economy. They proposed to show how it is produced, exchanged, consumed, and distributed. They were well aware of the fact that these processes profoundly affect the physical and moral well-being of mankind, and they were not indifferent to these effects, but they believed that in the interests of truth and the discovery of fundamental laws, wealth phenomena should be independently and objectively studied. According to them, the pure science of political economy is not concerned either with questions of justice or with those of good and evil. These matters belong rather to the art of political economy, in which not simply what is, but what ought to be, may and should be considered. Here moral and political considerations have a place. But the pure science seeks simply to explain facts as they are and is as unmoral as physics and mathematics.

In support of this interpretation of the classical economists' conception of their science he quoted Senior and Say. The former said: "The subject of legislation is not riches, it is well-being; the subject of political economy is not well-being, but riches. The conclusions at which the economist arrives, however true and general they may be, do not authorize him to give any practical advice. That is the task of statesmen and of writers who study legislation."² On the same subject Say in his *Cours d'économie politique*³ wrote: "If political economy should profess the pretension of governing the state, it might bring upon itself the hostility of those in authority, but this danger is not to be feared since it consists only in a description of the manner in which things take place in society."

Sismondi dissented from these propositions. It was his opinion that the well-being of mankind should be made the subject-matter and the goal of the science and that the attempt to separate wealth from other social phenomena connected with human well-being had resulted in error rather than truth and had had unfortunate effects upon that well-being itself. He did not believe it possible, or at any rate practicable, to separate the science from the art of the subject and cited in proof of his contention the apparent inability of the classical economists themselves to avoid mingling the discussion of political and moral questions with that of principles. "Never have they arrived at a conclusion," he said,⁴ "that they have not demanded the immediate appli-

² J. C. L. Simonde de Sismondi, *Études sur l'économie politique* (Brussels, 1837), II, 2 and 3.

³ Jean-Baptiste Say, *Cours complet d'économie politique pratique*, I, 56.

⁴ *Études*, II, 3.

cation of it. Never have they established or believed that they have established the fact that a course of operations results in the increase of wealth without dubbing with the names of false reasoners, reactionaries and defenders of prejudice those who point out the inconveniences of it."

Among the unfortunate consequences of this attempt to separate the consideration of wealth phenomena from that of human well-being he mentioned the tendency to overestimate the importance of the increase of wealth and to underestimate that of its distribution and in particular the consideration of wages as a mere cost of production like the prices of raw materials and machines. According to Sismondi it is only by considering wealth in its relations to men that we can get a clear idea of it. The classical economists, he claimed, confused the means with the end. He would substitute for the study of wealth that of human well-being.

He quoted Ricardo to the effect that it is a matter of indifference to a person whether his capital employs 100 or 1,000 men provided only profits are the same in both cases, and exclaimed: "Are riches then everything and men absolutely nothing! All that can be desired then is that the king, dwelling all alone in his Island, should be able automatically by turning a screw or pressing a button to do all the work of England!"⁵

The subject of method was not systematically discussed by Sismondi, but his ideas on the subject were clearly expressed in various connections. They were in entire harmony with those later developed and popularized by the old Historical School. Their divergence from those of the classical school appears in his comments on the speculative and abstract character of this school's work. "The science in their hands," he says,⁶ "is so speculative that it seems to detach itself from everything practical." "The new English economists," he said in another place, "are very obscure, and can be comprehended only with much fatigue because our minds object to admit the abstractions they demand of us." He complained of Ricardo, Say, and McCulloch on the ground that they based their theories upon elementary reasoning, "upon very simple facts separated from the social conditions to which they belong, isolated from everything which explains or illuminates them. They do not perceive the complexity of things. They neglect details. By pretending to simplify, they only confuse, only withdraw from our view

⁵ Albert Aftalion, *l'Œuvre économique de Simonde de Sismondi* (Paris, 1899), p. 48.

⁶ *Ibid.*, pp. 56, 57, and 52.

everything which would permit us to distinguish truth from error." "They suppose 'a hypothetical world entirely different from the real world.'"

In contrast he declared that "one should question absolute propositions, everything like abstractions. Political economy is not a science of calculation. It goes astray when it allows itself to be guided by numbers." "In no science is theory more deceptive, because in none is it so difficult to take account of all the circumstances, in appearance independent, which react upon each other." "The economist must not only follow the passage of wealth through the processes of production, consumption, circulation, and distribution, but must inquire regarding who are the consumers and the producers, must distinguish the different social classes, the different professions. They should not talk merely of wages and profits, of agriculture and industry, but also of the rich and the poor, of capitalists and laborers, of farmers and industries. They should keep men constantly in view."

According to the teachings of the classical economists liberty and competition are beneficent forces, promotive of the well-being of society. Economic evils for the most part are due to friction in or interference with the operation of these forces, and the remedy for them should be sought in the removal of such friction or interference. On this point Sismondi took issue with them, claiming that among men as history, observation, and experience reveal them, instead of among those of the type pictured in the imaginations of the classical economists, these forces have actually produced and will normally continue to produce the steady deterioration of the laboring classes, evils of such character and magnitude as to be inconsistent with and destructive of the very well-being which these forces are supposed to promote.

That such deterioration had already taken place and was still in progress he attempted to prove by comparing the conditions under which laborers then lived and worked with those of the preceding period. In this comparison he noted the following as characteristics of the new régime: the competition of laborers with each other; the separation of labor and capital; the separation of wages and profits and the treatment of the former as a cost of production; the work of women and children; the expropriation of labor by machines; and the development of a two-class society consisting of property-owners and the proletariat.

According to Sismondi this separation of labor and property pauperizes workmen by removing the only efficient check upon an undue

increase in their numbers. So long as the laborer had property he could calculate his income with accuracy and regulate the size of his family accordingly. Without property, his income is absolutely dependent upon the demand of the capitalists for his services and regarding that demand he has no certain knowledge and over it no control. Under these conditions there is no efficient check to population, and it, therefore, increases to such an extent as to create severe competition between laborers for employment, to force women and children into the laboring class, to lower wages, and to produce pauperism.

In this connection Sismondi also made use of a favorite theory regarding gross and net income. When property is widely diffused and divided, so runs the argument, the goal of production is the greatest gross income; but when it is concentrated in a few hands and the two-class system prevails, net income is the goal, that is, the largest possible margin between gross product and cost of production.

That the pursuit of these two goals leads to very different results he illustrated in various ways. "Here, for example," he said,⁷ "you have land which, when well cultivated brings gross produce of the value of 1,000 shillings to the farmer and yields 100 shillings in rent to the proprietor. But the proprietor thinks that he would gain 110 shillings if he left it fallow or let it as unprofitable pasture. 'His' gardenet or vinedresser is dismissed, but he gains 10 shillings and the nation loses 890. By and by the capital employed in producing this plentiful supply will no longer be so employed, and there will be no profit. The workers whose former toil produced these products will no longer be employed and no wages will be paid.'"

Of this kind of procedure he supplied many examples, among which was that of Scotch proprietors who replaced the ancient system of cultivation by the open-pasture system, sending their tenants from their dwellings and driving them into the towns or huddling them on board ships bound for America; and of the Italian *mercanti de tenure*, speculators who hindered the repopulation and cultivation of the Roman Campagna. "That territory was formerly so very fertile that five acres were sufficient to provide sustenance for a whole family as well as sending a recruit to the army. To-day its scattered homesteads, its villages, the whole population, together with the farm enclosures, the vineyards, and the olive plantations,—products that require the continual loving attention of mankind,—have all disappeared, giving place

⁷ *Nouveaux principes*, I, 154.

to a few flocks of sheep tended by a few miserable shepherds."⁸

He declared that the pursuit of the net produce goal has become nearly universal in modern society and that the result has necessarily been disastrous to the laboring class, cutting down the gross product of society and forcing upon workmen severe competition, low wages, and woman and child labor.

According to Sismondi another consequence of the régime of liberty and competition has been commercial crises, of which he offered no less than three explanations or causes. One was the impossibility of acquiring exact knowledge of the market for goods on account of the wide separation of producers and consumers. Inaccurate estimates and guesses of the quantity of goods that can be sold at remunerative prices alone are possible under the modern régime, he said, and, since these are frequently wrong, maladjustments of production and consumption result in commercial crises.

A second cause he found in the alleged fact that modern producers are guided in the determination of the volume of their production by the amount of their capital instead of the demand for goods. This is a consequence of the unequal distribution of wealth, due to the concentration of property in a few hands. This condition of things brings to the few an income so large that its consumption is impossible and its accumulation and employment as capital necessary. Thus goods are produced in ever-increasing quantities without reference to the need for them, and overproduction and crises necessarily result.

This second cause is closely related to the third one which is also connected with the concentration of property in a few hands. According to this view the revenues of the property classes alone are increasing and consequently there is a ^{growing} ~~increasing~~ demand "for the more refined objects in place of a ^{read} ~~rough~~ demand for the ordinary things of life: a neglect of the more ^{provemental} ~~provemental~~ industries, and a demand for the production of luxuries." and the result, so says Sismondi, is that the old, neglected industries are obliged to dismiss their workmen, while the new ones commonly develop slowly. "During the interval the workmen who have suffered dismissal are forced to reduce their consumption of ordinary goods, and permanent under-consumption, attended by a crisis, immediately follows."⁹

Sismondi did not deny that the evils of pauperism and crises were

⁸ *Nouveaux principes*, I, 232, 233.

⁹ Gide and Rist, *A History of Economic Doctrines*, translated by Smart and Richards, p. 191.

in a sense self-corrective; that is, pauperism and its concomitants, undernourishment, disease, and death, in time reduce and ultimately wipe out overpopulation, and crises result in the destruction of goods and the loss of capital which ultimately remove the excess of goods and temporarily correct overproduction. To his mind, however, these facts did not justify the modern régime or support the view that in the long run human well-being is promoted by it. The suffering and woe which these processes of readjustment occasion outweighed, in his mind, the advantages which might be attributed to them.

Sismondi's views on the relation of the state to industry were the logical outcome of those which have already been indicated on the nature of political economy and the effects of liberty and competition. The view of the classical economists that in the long run the interests of individuals and those of society are in essential harmony resulted from their conception of political economy as the science which aims merely at showing how the greatest amount of wealth can be produced with the least amount of effort. From the same source come also their doctrine of free competition and laissez-faire. With this point of view they easily showed that "in working for himself, each one is also working for all. Every new product, at the same time that it enriches its author, enriches the country, since it merely adds to the mass of national wealth. Hence we must ask the state to restrain itself and not hinder competition. In the struggle with his rivals, each one, in order to triumph over others, is compelled to produce at less expense and to sell at the lowest possible price. Victory belongs to the one who, with an equal capital, obtains the most goods and discovers also the best methods of increasing productivity in general. The one who is strongest in the universal competition is the most useful to society."¹⁰

If we take the point of view that political economy has for its goal human well-being instead of the production of the greatest amount of wealth, Sismondi claimed and attempted to show, views of the functions of the state, and of the relation between the interests of individuals and those of society, result which are very different from those held by the classical economists. He attempted to show, for example, that the production of the greatest amount of wealth was not in harmony with the best interests of society, that the interests of individuals were frequently in conflict, especially those of different manufacturers, of manufacturers and workmen, and of the property classes and the proletariat, and that the interests of individuals are

¹⁰ Aftalion. *op. cit.*, p. 76.

frequently in conflict with those of society as a whole. From these facts he concluded that the state should intervene to modify competition, "to protect the poor against the rich, workmen against employers and cultivators against the extension of large landholdings."¹¹

Sismondi also held that the state should attempt to curb production and put "a drag upon the too rapid multiplication of inventions." He dreamed "of progress accomplished by easy stages, injuring no one, limiting no income, and not even lowering the rate of interest."¹²

Regarding the means by which these ends should or could be attained Sismondi was not clear. Indeed, he seemed at times to have almost despaired of the task. "I grant," he said,¹³ "having indicated what in my opinion is the principle of justice in this matter, I do not feel myself equal to the task of showing how it can be realized. The present method of distributing the fruits of industry among those who have cooperated in its production appears to me to be curious. But a state of society absolutely different from that with which we are acquainted appears to be beyond the wit of man to devise."

The extreme view here expressed, however, does not represent his habitual or normal attitude.¹⁴ The duty of suggesting reforms and of formulating and enacting the laws necessary for their attainment he claimed belonged primarily to the legislator rather than the economist.

Among the reforms which he himself suggested were the granting of the right of combination of laborers, the limitation of child labor, the abolition of Sunday toil, the shortening of the hours of labor, and what he called a "professional guarantee" "whereby the employer, whether agriculturist or capitalist, would be obliged to maintain the workman at his own expense during a period of illness or of lock-out or of old age."¹⁵

¹¹ Aftalion, *op. cit.*, pp. 77 and 78.

¹² Gide and Rist, *op. cit.*, p. 192.

¹³ *Ibid.*, p. 195.

¹⁴ Aftalion, *op. cit.*, p. 79.

¹⁵ Gide and Rist, *op. cit.*, pp. 194, 195.

CHAPTER XVI

COLLECTIVISM AND ASSOCIATIONISM

A. SAINT-SIMON AND COLLECTIVISM

Sismondi is often classed with the Socialists, but in reality he belongs to a transition group between them and the classical economists, as does also Saint-Simon, though the latter was much closer to the Socialists than the former. Born in Paris in 1760 of a noble family which traced its origin to Charlemagne, Saint-Simon entered the French Army in his young manhood and accompanied that section of it which went to America to assist the colonies in their war for independence. On his return trip he was captured by the British and after being held for some time a prisoner in Jamaica made a visit to Mexico, to the viceroy of which he suggested the project of a canal to unite the Atlantic and Pacific. De Lesseps, who afterward undertook to execute this project, was one of his admirers and pupils. At the outbreak of the French Revolution, he renounced the title of Count and joined the Revolutionary forces, but in spite of this was suspected by the extremists and for some time kept in prison. Here, he tells us, he had a vision in which his ancestor Charlemagne appeared and made to him the following revelation: "Since the world has existed, no family has enjoyed the honor of producing a hero and a philosopher of the first rank. This honor has been reserved for my house. My son, thy success as a philosopher will equal mine as a warrior and politician." ¹

With this great mission in mind and with absolute confidence in his own ability to realize it, after the Revolution he devoted his time chiefly to philosophy and science.

At the beginning of this phase of his career, he apparently had the design of creating a science of sciences, a sort of generalization of all knowledge, but soon turned his attention almost exclusively to social subjects and in collaboration with a number of his followers, produced the following works:

¹ Richard T. Ely, *French and German Socialism in Modern Times* (New York: Harper & Brothers, 1883), p. 56.

"Sur la science de l'homme," unpublished

"Sur la gravitation universelle," unpublished

l'Industrie (1817-1818)

De système industriel (1821-1822)

Catéchisme des industriels (1823-1824)

Nouveau christianisme (1825)

Throughout these works he emphasized a few leading ideas, among them the following:

(a) *That the inner life as well as the external acts of men need authoritative guidance.* To the time of the Reformation the Catholic Church supplied this need in Europe, but since then its influence has declined and it has ceased to hold the nations together and to mold men's lives. A critical and destructive period succeeded in which the old guides and rulers of men and society were destroyed without any substitution for them being found. For these the world is now waiting.²

(b) *That the prosperity and well-being of all depend upon the economic and professional classes.* "Let us suppose," says he, "that France suddenly loses fifty of her first-class doctors, fifty first-class chemists, fifty first-class physiologists, fifty first-class bankers, two hundred of her best merchants, six hundred of her foremost agriculturists, five hundred of her most capable ironmasters, etc. (enumerating the principal industries). Seeing that these men are its most indispensable producers, makers of its most important products, the minute that it loses these the nation will degenerate into a mere soulless body and fall into a state of despicable weakness in the eyes of rival nations, and will remain in this subordinate position so long as the loss remains and their places are vacant. Let us take another supposition. Imagine that France retains all her men of genius, whether in the arts and sciences or in the crafts and industries, but has the misfortune to lose on the same day the king's brother, the Duke of Angoulême, and all the other members of the royal family; all the great officers of the Crown; all ministers of State, whether at the head of a department or not; all the Privy Councillors; all the masters of requests; all the marshals, cardinals, archbishops, bishops, grand vicars and canons; all prefects and sub-prefects; all Government employees; all the judges; and on top of that a hundred thousand proprietors—the cream of her nobility. Such an overwhelming catastrophe would certainly aggrieve the French, for they are a kindly-disposed nation.

² Ely, *op. cit.*, p. 62.

But the loss of a hundred and thirty thousand of the best-reputed individuals in the State would give rise to sorrow of a purely sentimental kind. It would not cause the community the least inconvenience." ³

(c) *That society should be reorganized in such a manner as to give the economic and professional classes control.* Since these classes alone are necessary and important, all persons should be incorporated in them and the machinery for the direction and functioning of agriculture, industry, and commerce, as well as that of government, should be put in their hands. Saint-Simon believed that the functions of government should be very different from what they are at the present time. "What is required," he said, "is the organizing of forces rather than the governing of men. Politics need not disappear altogether, but must be transformed into a positive science of productive organization. Under the old system the tendency was to increase the power of government by establishing the ascendancy of the higher classes over the lower. Under the new system the aim must be to combine all the forces of society in such a fashion as to secure the successful execution of all those works which tend to improve the lot of its members either morally or physically." ⁴

In the reorganization he desired to see brought about Saint-Simon believed that labor should be guaranteed to all and that each should be rewarded according to the service he renders. In the new society there should be no place for idlers nor for social classes of the kind now existing. There should be no need for nobles, bourgeois, or clergy. It would include only "manual workers, agriculturists, artisans, manufacturers, bankers, savants, and artists. Between these persons there ought to be no difference except that which results from their different capacities or what Saint-Simon calls their varying stakes in the national interest." ⁵

"Industrial equality," Saint-Simon said, "consists in each drawing from society benefits exactly proportionate to his share in the state—that is, in proportion to his potential capacity and the use which he makes of the means at his disposal—including, of course, his capital." ⁶

Saint-Simon did not work out completely the form of government which would attain the ideals he had in mind. In a general way he proposed "to confine the executive power to a Chamber of Deputies

³ Quoted by Gide and Rist, *A History of Economic Doctrines*, translated by Smart and Richards, p. 204.

⁴ *Ibid.*, p. 208.

⁵ *Ibid.*, *op. cit.*, p. 206.

⁶ *Ibid.*, pp. 208 and 209.

recruited from the representatives of commerce, industry, manufacture, and agriculture. These would be charged with the final acceptance or refusal of the legislative proposals submitted to them by the other two Chambers, composed exclusively of savants, artists, and engineers. The sole concern of all legislation would, of course, be the development of the country's material wealth."

His conception of the new society was that of a huge factory having as its one object "the increase of positive utility by means of peaceful industry."⁷ The running and management of this factory was to be the sole business of government. No other form of control or coercion was, in his judgment, desirable or necessary.

B. THE SAINT-SIMONIANS

Saint-Simon associated with himself a number of men who shared his theories and his enthusiasm and after his death formed themselves into a sect for the propagation of his ideas. To this end they established an organization called the "Sacred College of Apostles"⁸ with headquarters in Paris and branches in Toulouse, Montpellier, Sorèze, Lyon, and other parts of France. The members lived a kind of monastic life and made Saint-Simonism their religion.

They developed their master's ideas into a system of state socialism which the French call "collectivism," laying the foundation for it by a thoroughgoing criticism of the institution of private property, which they regarded as both unjust and uneconomical; unjust, because it involves exploitation; uneconomical, because it often puts the control of economic affairs in the hands of incompetents. Exploitation is the very essence of it, since it furnishes an opportunity to obtain without work wealth, the production of which is imposed upon other people. Since it carries with it the right of inheritance, it puts the control of the agents of production and distribution into the hands of people who do not necessarily have the ability to exercise it in the most efficient manner—of those, namely, who simply happen to be born into certain families. Under these conditions efficient administration is a matter of chance, and inefficiency the rule.

To these arguments they added the testimony of history. They called attention to the fact that the institution of private property had

⁷ Gide and Rist, *op. cit.*

⁸ For the names of the more prominent members and the details of its organization, see *ibid.*, p. 211, and Ely, *op. cit.*, p. 74.

its origin in the remote past and that it has already undergone many modifications. In their judgment, it is destined to disappear, its scope having been steadily narrowing with the progress of time. At first it was broad enough to include men as well as things. Then the right of the master over his slaves was gradually transformed and finally abolished. Reduced in its application to the ownership of things, it could at first be transmitted according to the will of the owner only. Then legislators intervened by making rules in accordance with which it could be inherited, at first making the eldest son the sole heir, then, after the French Revolution, enforcing equal distribution among all children. To accomplish its disappearance the last step remains, namely making the state the sole inheritor.

The Saint-Simonians advocated the taking of this step which would ultimately give the state complete control of all the agents of production. This accomplished, the management of economic affairs should be put in the hands of the most competent persons, and the wealth produced should be distributed among all workers according to the contribution of each to the total. "From each according to his ability and to each according to his contribution" was their motto.

Regarding the details of the procedure necessary for accomplishing this reform, the Saint-Simonians were for the most part silent, thus leaving many difficult problems unsolved, but they believed that it would appeal to people once it was understood and had great faith in the ability of their sect to spread understanding of it among the people.

C. THE ASSOCIATIONISTS

Contemporaneously with Saint-Simonism appeared a group of writers and thinkers who, as the correct means to social reform, looked to *voluntary association* instead of *collective action imposed from above*. They believed that individual liberty was a possession as precious as economic well-being and that the acquisition and maintenance of both should be the goal of reformers. Individual liberty, they thought, had been practically destroyed by competition under the existing régime and would be equally endangered by the compulsion necessarily involved in state socialism. The problem, as they saw it, was to eliminate competition among employers for profits and among laborers for wages, which, in their opinion, had resulted in monopoly and the loss of individual liberty, and to substitute for it voluntary co-operation, leaving individuals free to follow their own desires and

avoiding the compulsory features of the plans of the collectivists. Such association, they believed, would also accomplish better results than the present régime in the realms of production and distribution.

For the solution of this problem a considerable number of plans were suggested, differing widely from each other, some of them fantastic and absurd, others sufficiently practical to invite experimentation. The authors of some of these have exerted sufficient influence to warrant a brief account of them here. These are Robert Owen, Charles Fourier, Louis Blanc, and Proudhon.

1. *Robert Owen.*

Born June 14, 1771, in Newton, North Wales, Robert Owen passed his boyhood first as an apprentice in a mercantile establishment in Stanford, Lincolnshire, and afterward as a clerk in a mercantile house in London. At the age of eighteen he moved to Manchester, where he made a study of the cotton industry, in which he became an expert. In his early twenties he purchased a spinning factory in New Lanark, Scotland, in which he began a series of social and economic experiments which made him famous.

The first of these aimed at the improvement of working conditions in the New Lanark factory. When he took it over he found that the laboring people were badly housed and inadequately paid, that they worked excessively long hours, and that they were addicted to drunkenness and other bad habits. These conditions applied to women and children as well as men. In attempting to remedy them he encountered numerous obstacles, including a feud between his Scotch and English workmen and the opposition of his stockholders. He succeeded in overcoming them all, however, and in completely transforming the factory and the community. He abolished child labor; shortened the hours of work, especially of the women; raised wages; improved sanitary conditions; furnished educational facilities for all; and provided entertainment and means of social intercourse. He so completely changed the environment in which his work-people lived and so much increased their happiness and well-being that, in his opinion, they became different men and women with new ideas and ideals and a new attitude toward each other, their employers, and life.

From the point of view of profits his operations were also successful, but he insisted on keeping the rate of dividends at 5 per cent and distributing the surplus earnings among the laboring people.

His experiments and experiences at New Lanark implanted in

Owen's mind certain convictions which became the basis of a social philosophy which he later developed and expounded in a number of writings, namely, that the productivity of labor depends very largely upon the kind of treatment accorded laborers by their employers; and that the character and ideas of laboring people can be transformed by a change in their environment. He developed and defended these principles in some essays published in 1812 and 1813 under the title, *A New View of Society; or Essays on the Principle of the Formation of the Human Character and the Application of the Principle to Practice*.

An impulse to the development of other theories was supplied by the commercial crisis of 1815, which was accompanied, as such catastrophes always are, by the closing of factories, unemployment, increase of poverty, and financial loss. Of these phenomena Owen offered the following explanation: The improved technique of industry resulting from the industrial revolution accompanied by the demand of the government for war supplies enormously increased the supply of goods during the period of the Napoleonic wars. At their close the government demand decreased without a corresponding increase from other sources, leaving a surplus of production which precipitated the crisis.

The failure of the public demand to increase to take the place of the lessened government demand he explained by the substitution, during the preceding period, of machinery for labor, which had lowered wages and diminished the purchasing power of working people.

He later developed a more general theory of crises in which the struggle for profits played an important rôle. In this struggle he saw a cause for overproduction which operates continually and brings about crises periodically without the intervention of war. He came to regard profits as one of the major evils of modern society. "They are," he said, "the excess of the price of goods over the costs of production," whereas "goods ought to sell at the cost of production," and they constitute an injustice and a perpetual menace. Their elimination should be one of the goals of social reform.

After the crisis of 1815 Owen conducted a number of experiments in the form of labor colonies and in the years 1830-1832 he established a labor exchange in London. The colonies were voluntary associations of a communistic character in the United States, Mexico, and England, and the labor exchange was an experiment in cooperative marketing in which profits were dispensed with and goods were exchanged on the basis of their costs of production in labor. Goods were received at the exchange and credited to those bringing them or paid for in

labor tickets on the basis of the amount of labor required to produce them. They were sold on the same basis, the amounts purchased being debited to the accounts of the purchasers or paid for in labor tickets.

All of these experiments were short-lived and none of them successful in the sense that they resulted in the establishment of permanent institutions or demonstrated the feasibility of dispensing with profits or preventing unemployment by the voluntary association of producers. But their failure did not disillusion Owen. He clung to the belief that environment is the dominant influence in the formation of human character and that profits must be eliminated in the interest of permanent and far-reaching social reform. He reasoned that, if goods could be exchanged on the basis of their cost of production in labor, the total value of everything produced would be transferred to laborers, who would then be able to buy everything offered for sale, thus preventing overproduction, crisis, and unemployment. Money, which he regarded as a great evil, could also be eliminated, the labor ticket taking its place.

Owen devoted the later years of his life to the development and propagation of his theories, publishing numerous articles in the *Economist*, the *Orbiston Register*, the *Cooperative Magazine*, and the *Coöperator*, and several monographs, among them *The New Moral World* in 1834, *What Is Socialism?* in 1841, and *The Human Race Governed without Punishment* in 1858.

2. Charles Fourier.

Fourier was born in Besançon, France, in 1772. His father, who was a successful coffee merchant, died when Charles was yet young, and left him an inheritance of 100,000 francs which he invested in foreign trade in Lyon. During the Reign of Terror in 1793 this city was besieged, his business was ruined, and he himself was imprisoned. After this he joined the army for a time, but ill health compelled him to return to mercantile pursuits.

His business was not his only interest, however, and did not completely occupy his mind. Intellectually gifted and with a natural love for theorizing, he spent much time in thinking and writing and made a reputation for himself by his publications and schemes for social reform.

His thoughts are said to have been directed toward social problems by two events in his early life. One was a reproof received for telling

the truth regarding some matters concerning which the proprietors of the shop in which he was employed had been accustomed to practise misrepresentation and the other was his being required to assist in throwing overboard in the harbor of Marseilles rice that, for speculative purposes, had been kept so long that it had spoiled. From these experiences he concluded that there was something radically wrong with a social system that "forced children to lie and men to allow food needed by hungry people to rot."

The results of his thinking on social subjects were embodied chiefly in three books: *la Théorie des quatre mouvements*, published in 1808; *Traité de l'association domestique agricole ou attraction industrielle*, later entitled *la Théorie de l'unité universelle*, published in 1822; and *Nouveau monde industriel*, published in 1829.

The basic principle of his social philosophy is what he called the *law of attraction*, which he thought operated throughout the entire universe. In society its natural result is association, which is now prevented by man-made, artificial obstacles the removal of which would bring about social harmony and a great increase in the production of wealth and in the happiness and well-being of men.

What is needed, he thought, is the opportunity for the free play of the twelve major passions of mankind, which he named⁹ seeing, hearing, smelling, feeling, tasting, amity, love, paternity, ambition, desire for intrigue, love of change, and desire for union. The result of the operation of these, he said, would be "*unitéisme*." By mathematical calculation he found that these twelve passions may be combined in different individuals in 820 different ways. An ideal society must contain all of these combinations and consequently should consist of a sufficient number of persons to ensure this result. This number, he calculated, should be not less than 1,500 nor more than 2,000—generally speaking, about 400 families. He therefore proposed that people should form themselves into voluntary associations of about that number of families.

For the housing of each *phalanstère*, the name he proposed for each of these groups, he recommended the construction of a large and magnificent building containing apartments of all kinds to suit the tastes of the different people, common dining-halls, a theater and concert room, a library, and all the other accessories of a comfortable and pleasant life. An amount of land sufficient for the production of the food and most of the raw materials needed was to be provided for each

⁹ Ely, *op. cit.*, p. 92.

phalanstère, and there were also to be manufactured by the members of each the goods needed for their comfort, an amount that he thought could and would be much smaller than is required by present-day standards. He believed that each *phalanstère* should be economically independent, or nearly so, exchange with others supplying only those few commodities for the production of which facilities or raw materials might be partly or wholly lacking.

Each person belonging to the group was to work, but at that occupation which pleased him. Fourier believed that labor was naturally attractive and agreeable and that, if people could be assured a sufficiency of the necessities and comforts of life, they would want to be occupied and that they would love work as children now love play. He did not anticipate any difficulty in getting the requisite kinds of work done because, since all combinations of the major passions would be represented in each group, all kinds of tastes would be present and labor of every kind would be voluntarily chosen. The love of change, one of the major passions, would be gratified by the freedom of each person to change his work as often as he pleased.

Fourier proposed that these *phalanstères* should be financed on the joint-stock principle, each person owning as many shares of stock as he desired, and that the joint product should be divided among the members on the principle that labor should receive $\frac{5}{12}$; capital, that is the stockholders, $\frac{4}{12}$; and talent as he called it, or the professions chosen by the direction and management of the concern, $\frac{3}{12}$.

These communities were to be organized on a purely democratic basis, all officers and directors being chosen by the free votes of members. He had no doubt that under this system the very best people would be selected for the respective places, since each person would be interested in having the work done in the best possible manner. Each *phalanstère* was to be managed by a chief, known as a *unarch*. Groups of *phalanstères*, amounting to three or four, were to be managed in their joint interest by an officer known as a *duarch*. These in turn might be federated indefinitely and their chiefs known as *triarchs*, *tetrarchs*, *pentriarchs*, etc. When the whole world should be organized, he proposed that the capitol and the highest officer, whom he would call *omniarch*, should be located at Constantinople, which he proposed to make the capital of the world.

Fourier believed that this reform would greatly increase the productivity of labor, each man being able to produce enough in ten years, for example, between his eighteenth and twenty-eighth year, to

enable him to pass the remainder of his life in elegant leisure. Thus organized he maintained that England "could pay off her national debt in six months by the sale of hens' eggs."¹⁰

This enormous increase in productivity he claimed would result from the economics of associated effort and the increased efficiency of labor. Among the former he reckoned the decreased cost of housing, the structures needed by these *phalanstères* costing in the aggregate a mere fraction of what present residences and housing facilities cost, and greater economy in the preparation and supply of food. "A fire to cook 400 dinners," he said,¹¹ "may not cost ten times as much as a fire to cook two, while it requires scarcely a greater exertion to watch a large roast than a small one." A similar economy would also be secured in the housing of animals, tools, and implements and a large number working together would afford every opportunity for a fruitful combination and division of labor. Other economies would be effected by the suppression of useless classes. "In the new society there will be no soldiers of destruction, no policemen, agents of a discordant social régime, no criminals and lawyers, both products of civilization, of disharmony; finally, no metaphysicians and no economists."¹²

Another great advantage to be gained from this reform, according to Fourier, is the disappearance of antagonisms and hatreds among men. Associated in these ties, men would learn to understand each other and would soon lose their prejudices, antipathies, and hatreds. Since labor would become attractive and everybody would work, health would be greatly improved, life prolonged, and the sum total of happiness enormously increased.

Fourier died at the age of sixty-five without having seen any considerable measure of success attend his efforts for social reform. He had made a few but very few converts, and very few experiments with his *phalanstères* had been attempted. After his death, however, a considerable number of disciples appeared, and in the aggregate a considerable number of experiments with his scheme have been tried. In his *History of American Socialism* J. H. Noyes mentioned thirty-four in the United States. Several others have been tried in France and some in England. Among the most noteworthy of these is a community at Guise, France, founded by Jean Godin, a wealthy manufacturer, which has flourished for many years. In his history of

¹⁰ Ely, *op. cit.*, p. 95.

¹¹ *Ibid.*, p. 98

¹² *Ibid.*

economic doctrine Gide mentions others, recommending in "particular as the best representatives of these institutions the ones located at Bournville, Port Sunlight, and Agneta Park, Holland." The famous Brook Farm of which Albert Brisbane, Horace Greeley, Charles A. Dana, George Ripley, Margaret Fuller, George William Curtis, Nathaniel Hawthorne, and W. H. Channing were members, belonged also among these experiments.

3. *Louis Blanc.*

Unlike the other associationists who have been described, Louis Blanc lacked faith in the ability of unaided individuals to accomplish social reform. He believed that the state must assist in the process but only by way of giving the movement a start.

He was born in Madrid, October 28, 1813, his father at the time being an inspector of finance under Joseph Bonaparte. While he was still a child, the family moved to Corsica, the native place of his mother, and in 1830 to Paris where, as a result of the Revolution, his father met with financial disaster. Thrown upon his own resources, in 1834 Louis joined the staff of a newspaper, *le Bon sens*, and in 1839 founded the *Revue du progrès*, in which first appeared the publication by which he is chiefly known among economists and socialists, entitled *Organization du travail*. He afterward published a history of the decade which followed the revolution of 1830 under the title *Histoire de dix ans*, a history of the revolution of 1789 entitled *Histoire de la révolution française*, a *Histoire de la révolution de 1848*, and *Lettres sur Angleterre*.

On account of the part he was supposed to have taken in revolutionary activities, in 1848 he was forced to leave France. He fled to Belgium and afterward to England, where he resided until the downfall of Napoleon III in 1870, maintaining himself by writing, among his other literary activities serving as English correspondent of *Le Temps*. After his return to Paris in 1870 he was elected a member of the National Assembly. He died December 6, 1882.

During his young manhood he evinced a tendency toward radical thinking on social subjects and in his *Organization du travail* explained his ideas, including a plan for social reform. The revolution of 1848 gave him an opportunity to put some of them into execution. As a member of the Provisional Government in February of that year he advocated the theory of *the right to labor*, involving the duty of government to guarantee work to everybody. To this end he de-

manded the establishment of a ministry of labor, and progress, but succeeded only in securing the appointment of a committee of investigation, of which he was made the head, and the establishment of *Ateliers Nationaux* for the supply of labor to the then unemployed. The management of these institutions was put into the hands of a man in no sense sympathetic with Blanc's ideas, and their failure has been attributed to this fact. They certainly did not remotely resemble the institutions Blanc described in his book. His forced departure from France after the labor uprising of May 15, 1848, in which he was believed to have participated, put an end to his opportunities to put his ideas into practice.

After his return to France he opposed revolutionary activity and as a member of the government took part in the suppression of the Commune.

The basis of his social philosophy was the conviction that every human being has the right to happiness and to the development of his powers and that no social organization is tolerable which does not make the complete enjoyment of this right possible. "It is repugnant to reason to admit in the theory of progress," he said, "that humanity ought forever to be a victim of I do not know what strange and terrible combat between the flesh and the spirit."¹³ Under the present organization of society he believed that competition and laissez-faire prevent the enjoyment of this right. The former, being in essence the war of all against all, causes poverty, moral degradation, crime, prostitution, commercial crises, and international feuds. It should, therefore, be exterminated root and branch and its opposite, association, made the foundation of a new social order.¹⁴

As a means to this end he proposed the organization of *social workshops*, that is, voluntary organizations of producers supplied temporarily by the government with the capital necessary for the execution of their enterprises, the products of which should be divided into three parts, one for wages of labor, one for the accumulation of a fund for the payment of the advances made by the government and for the supply of capital to future enterprises, and one for profits to be distributed among the laborers as a supplement to their wages. The distribution of work and of wages and profits among laborers should follow the principle, *from each according to his capacity and to each according to his needs*.

¹³ Ely, *op. cit.*, p. 117.

¹⁴ Gide and Rist, *op. cit.*, pp. 256-257.

He believed that the advantages and economies of these workshops would become so apparent that producers would organize them in large numbers and that capitalists would ultimately be forced to join them since they would be unable to compete against the advantage of capital without interest and the economies of associated effort.

He further proposed that the management of these shops should be in the hands of officers, appointed by the government during the first year but thereafter by the workmen themselves, and that mutual assistance of one shop by another should be a recognized principle from the beginning, expecting by this means eventually to relieve the government of the obligation of supplying capital and to realize the universal sway of the principle of voluntary association.

4. Proudhon.

Differing in character and in many of his views from the three men just described, Proudhon should nevertheless be classed with them as an associationist.

He was born of humble parents in Besançon July 15, 1809, and, after enjoying such educational advantages as his native city afforded, learned the trade of a printer. As a proof-reader in an establishment which printed a large number of theological works he became familiar with that branch of knowledge and published a number of articles in the *Encyclopédie catholique*. He also studied comparative philology and published some essays in that field. In 1839, a prize having been offered by the Academy of Besançon for the best essay on the "Utility of the Celebration of Sunday," he entered the competition, and, while he did not win, the ability he exhibited so much impressed the committee of award that a sum of money was appropriated to enable him to devote himself to study and writing. He decided to begin with the investigation of the causes of poverty and the means of improving the condition of the poor, and once started his activities included participation in politics, social agitation, and attempts at social reform.

The most important of his publications¹⁵ were: *Qu'est-ce que la propriété?* (1840), *Système des contradictions économiques* (1846), *Organisation du crédit et de la circulation et solution du problème social* (1848), *Résumé de la question sociale, banque d'échange* (1848), *les Confessions d'un révolutionnaire* (1849), *Intérêt et principal* (1850), *De la justice dans la révolution et dans l'église* (1858), *la Guerre et la*

¹⁵ Gide and Rist, *op. cit.*, pp. 291 and 292, foot-note.

paix (1861), and *De la capacité politique des classes ouvrières* (1865).

His career as an agitator began in 1848. He did not take part in the revolution of February of that year, but in April became editor of a paper entitled *Représentant du peuple* and in time was elected representative of the department of the Seine in the Constituent Assembly. In spite of having witnessed the defeat in this body of several plans of social reform, he submitted one of his own, that of the Exchange Bank, which met the same fate, the vote being 691 to 2 against it. He continued to agitate with pen and voice, however, frequently using violent and extreme language and criticizing other agitators as well as the defenders of the existing régime.

These methods soon brought him into conflict with the authorities, with the result that his paper was suppressed and he was imprisoned for three years. During this confinement he wrote a book entitled *la Révolution sociale démontrée par le coup d'état du 2 Décembre, 1851*. After his release he devoted himself chiefly to the writing of the books which have been enumerated, the one entitled *De la justice dans la révolution et dans l'église* bringing him in 1858 again into conflict with the government. To avoid another imprisonment he fled to Belgium, not returning to Paris until 1860, when amnesty was granted him. He died in 1865.

His writings are full of contradictions, and it is difficult accurately to describe his ideas. His first book entitled *What Is Property?* was a violent attack on that institution, which he declared to be legalized robbery, since it enabled some to live from the labor of others. Every argument employed in favor of it, he thought, condemned it. For example, the claim that the right to property in land is justified by the occupation of the first comers he met by the statement that, if in the beginning land belonged to no individual, then it either was the property of all individuals in common or God's. If the former, the title still remains with the people and cannot be extinguished by occupation; if it was God's, the title still remains with Him, since He has never renounced it.

The argument that property is the result of the incorporation of one's labor with land or that he who joins his labor to the land has just title to it he met by saying that this argument justifies the right of possession but not that of property, the former involving merely the utilization of a natural agent of production in connection with one's own labor and not the securing of an income from it by transferring its use to others.

While many statements from Proudhon's writings could be quoted to show that he condemned private property root and branch, in reality he seemed to condemn only rent, interest, and profits. He believed in private property in income and in the most complete and thoroughgoing enjoyment by an individual of what he himself produces or acquires. He vigorously condemned communism and socialism of the types being advocated by his contemporaries.

His theory of property was in reality a theory of possession. Each person, he thought, should have free access to the means of utilizing his own labor; and so long as an instrument of production, natural or artificial, is used for that purpose, his right to it as against others should be unquestioned. But on no account should he be permitted to rent such an instrument to another person or receive an income in any form from another's use of it.

In regard to government, Proudhon declared himself to be an anarchist and described what that means in the following words: "What form of government shall we prefer? Ah, how can you ask? replies one of my youngest readers.—You are a Republican? Republican, yes; but this word defines nothing. *Res publica*—that is, the public thing; now, whoever wishes the public thing, under any form of government, can call himself a republican. The kings also are republicans.—Ah, well, you are a democrat? No.—What! are you a monarchist? No.—A constitutionalist? God forbid.—You are, then, an aristocrat? Not at all.—Do you wish a mixed government? Still less.—What are you then? I am an anarchist . . . Anarchy—the absence of master, of sovereign—such is the form of government which we approach every day, and our inveterate habit of taking man for a guide and his will for law makes us regard it as a heap of disorder and an expression of chaos . . . No one is king . . . Every question of internal politics ought to be solved according to the data of the Department of Statistics; every question of international politics is a question of international statistics. The science of government belongs of right to one of the sections of the Academy of Sciences, of which the perpetual secretary necessarily becomes the first minister; and since every citizen may address a memoir to the Academy, every citizen is a legislator; but as the opinion of no one counts except in so far as it is demonstrated to be true, no one can substitute his will for reason—no one is king. . . . Justice and legality are two things as independent of our consent as mathematical truth . . . In order that truth should become law it must be recognized. Now, what is it to recognize a

law? It is to verify a mathematical or metaphysical operation. It is to repeat an experience, to observe a phenomenon, to prove a fact."¹⁶

He believed that, if the right of each individual to the free use of the instruments of production were guaranteed and made real, the need for government in the ordinary sense of the term would disappear and in its place would appear arrangements for production and distribution voluntarily entered into to the mutual advantage of all concerned.

The Exchange Bank which he advocated in the Constituent Assembly and unsuccessfully attempted to put into operation was designed to accomplish this very thing, namely the guarantee to each person of free access to the instruments of production, thus rendering government unnecessary. In essence it was a bank of issue free from the obligation of redeeming its notes in coin but required without charge to exchange them for the promissory notes of people in need of capital, the payment of these promissory notes, after the productive operations which they were to make possible had been completed, bringing the notes issued by the bank back for reissue or cancellation.

Proudhon believed that this privilege of discounting without charge would enable any person to satisfy his need for capital and at the same time leave him quite free to employ his energy in any manner he might wish, thus solving the problem of individual liberty as well as that of production and distribution.

He was as thoroughgoing an individualist as the classical economists and as much opposed as they to all forms of communism and socialism, but he did not believe in the fundamental principles of private property and competition upon which the present economic system as well as their system of thought is based.

¹⁶ Gide and Rist, *op. cit.*, pp. 134 and 135.

CHAPTER XVII

SCIENTIFIC SOCIALISM

The revolution of 1848 in France marks an epoch in the history of socialism. The visionary type represented by the men we have been describing, frequently called Utopian socialism, declined in influence, and a new type, represented by Rodbertus and Karl Marx, followed. The opportunity offered by this revolution for trying out some of these visionary schemes and the failure of the experiments doubtless account, in part at least, for the change. In one form or another attempts were made to put into practice the "right to work," the "organization of labor," and the "voluntary association" principles and, while it cannot be denied that these experiments were not made under the best of auspices and that their execution was sometimes put into the hands of people who did not want them to succeed, their failure disgusted the people and discredited the socialistic movement in France for a generation.¹

In Germany conditions were different. Absolute monarchy was still the dominant type of government there, agitation for constitutions having weakened it considerably and modified it here and there but not supplanted it by popular government. Social experimentation of the kind prevalent in France was there impossible. The need for reform was great, however, and the desire for it widespread. Thousands of Germans who felt this need most keenly were living in exile because of the intolerance of their home governments, and a considerable number of them had been witnesses—some of them participants—in the French Revolution. There were colonies of such Germans in all the large cities of Europe, especially in Paris, London, and Brussels. Germany was, therefore, ready for reform ideas, offered a wide field for social change in the political as well as the economic realm, and had the machinery at hand for utilizing the results of the thinking and experimentation of other countries.

The development of a new type of socialism in Germany, however,

¹ For an excellent account of this experimentation and its failure, see Gide and Rist, *A History of Economic Doctrines*, translated by Smart and Richards, pp. 300-306.

is due more to the genius of two men than to the condition of the country, though the latter furnished the environment in which these men grew up and doubtless determined the direction of their thought. These were Johan Carl Rodbertus and Karl Marx, men differing widely in personal characteristics, family and social environment, race, and occupation and working quite independently, but nevertheless arriving at very similar conclusions by similar routes.

A. JOHAN CARL RODBERTUS

Rodbertus spent the greater part of his life as a landlord on an estate named Jagetzau near Jarmen, Pomerania. His father was professor of Roman law in the University of Greifswald, and Johan Carl was educated for the profession of law at a *Gymnasium* in Mecklenburg-Friedland and at the Universities of Gottingen and Berlin. For a few years after finishing his university course in 1826 he practised his profession; then he traveled in various parts of Europe and in 1834 purchased the landed estate on which he lived the remainder of his life.

He was honored at various times by appointment to important political positions, in 1847 to the Provincial Assembly and the second Parliament of the Kingdom of Prussia and later to the post of Kultus Minister. He was also a member of the national Parliament which met at Frankfort-am-Main in the stirring days of 1848.

His chief interest and occupation, however, was thinking and writing on social topics, and the conclusions at which he arrived made him an enemy of autocracy in government and a Socialist. He also believed in national unity. His principal published works were:

Die Forderungen der arbeitenden Klassen (1837)

Zur Erkenntnis unserer staatswirthschaftlichen Zustände (1842)

Soziale Briefe an Von Kirchmann (1850-1851), entitled respectively *Die sociale Bedeutung der Staatswirthschaft*, *Kirchmanns soziale Theorie und die Meinige*, and *Widerlegung der Ricardoschen Lehre von der Grundrente und Begründung einer neuen Rente-theorie*

Der Normal Arbeitstag

Offener Brief an das Comité des deutschen Arbeiter-vereins (1863)

Zur Erklärung und Abhülfe der heutigen Creditnoth des Grundbesitzes (1868-1869)

His system of thought may be briefly summarized as follows. Society is an organism created by the division of labor, each person

being a cog in a machine engaged in the production, exchange, and distribution of wealth, a mechanism speedily becoming world-wide in scope. Each person thus performs a part in a work in which the cooperation of all is necessary, and the well-being of each one, therefore, depends upon the work of others and the coöperation of nature as well as upon himself.

In this society there are three essential functions to be performed, the adaptation of production to needs, the maintenance of the volume of production up to the standard set by existing resources, and the just distribution of the common product among the producers. At present none of these functions are properly performed. Instead of being adjusted to needs, production follows demand, a very different thing, since it is directed and measured by income, which is very far from corresponding to needs. Production also is very far from being maintained at the standard of existing resources. It is directed by capitalist proprietors with the view to securing maximum profits, heredity playing an important rôle and frequently placing the control of economic forces in the hands not of the most, but of the least, competent. Wealth is very unjustly distributed, the masses being exploited by the few.

In the attempt to demonstrate these propositions he started with the doctrine that all economic goods are the product of labor and of labor only. This does not mean that labor creates goods, but simply that natural products and forces become economic goods, that is, the objects of human economizing, only by the combination of labor with them. Rodbertus wrote: ²

"It signifies in the first place that only those goods belong to the category of economic goods which have cost labor, whose production has demanded effort. All other goods, however necessary or useful they may have been, are natural goods which have no connection with economy, for economy exists for men only because most of the means of satisfying their reappearing and ever increasing needs are never to be found in nature, either in regard to locality or quality, in such a relation to him that he can use them for his satisfaction; because his work is the only means of establishing such a relation and because this work limited in time and power always involves a diminution of his freedom.

"This statement in the second place means that all economic goods are only the product of labor, that economically speaking they can not be regarded as the product of nature or of any other power, for what nature has

² *Schriften von Dr. Carl Rodbertus-Jagetzau, zur Beleuchtung der socialen Frage, herausgegeben von Moritz Wirth, zweite auflage* (Berlin, 1899), I, 104-110.

done for economic goods man may be thankful for since it has saved him so much work, but economy considers it only in so far as labor has completed the work of nature. As goods are on this account economic goods, so they are economic goods on this account only.

"This statement means in the third place that goods economically considered are the product of that labor which performs the material operations which are necessary to their existence. This includes, however, not merely the labor which immediately operates upon the goods, but also that which produced the tools employed in their production. Wheat, for example, is not merely the product of the one who guided the plow, but also of the one who made the plow. So true is this that goods can be mathematically proven to be a product of these two categories of labor."

"Economic goods are the product of no kind of labor except these two. The judge, for example, who looks after the legal rights of the laborer indirectly promotes the production of economic goods to an extraordinary degree, and for the service he renders deserves pay, but he does not produce economic goods but justice and one can as little speak of his producing economic goods because he gets his pay from them as he can of the laborer producing justice because he gives the judge economic goods in return for his labor. In a word, the great and universal help-and-service-rendering involved in the constitution of society is a much wider conception than that of the division of labor which has to do only with the production of economic goods."

Rodbertus did not confuse the proposition that labor alone produces goods with the one that it is the sole source of value. He did not hold that goods actually exchange for each other in proportion to the amounts of labor that produce them but merely that they ought so to do.

The fact that they are not exchanged in accordance with this principle is due to the position which landlords and capitalists occupy in our present-day society. These classes have inherited a position which enables them to secure an income without work—in other words, to exploit the labor of others.

Rodbertus distinguished two phases or stages in distribution: that between those engaged in the production of wealth and landlords and capitalists; and that between these persons and the other members of society, which he called "secondary distribution." Speaking of the latter phase, he said³: "The judge who manipulates justice for society, the physician who heals the sick, the teacher who instructs the youth, receive incomes to the production of which they have contributed no

³ *Ibid.*, I, 114.

work, incomes which are certainly the product of the labor of others. But all these persons receive their incomes out of that which political economists have called the secondary distribution of goods, receive them out of the incomes of others who have participated in the original distribution and received it from these others immediately or through the mediation of the power of the state as a just recompense for the useful services they render to society. But there are also persons in society who have a part in the original distribution of goods and receive from this their income without having cooperated in its production or without having rendered any kind of useful service either to society or to producers of the social income."

For this condition of things Rodbertus offered the following explanation ⁴:

"So long as the division of labor has existed others have actually tilled the soil and produced the capital than those to whom both belong. And those to whom it did belong never have themselves cultivated the soil or produced the capital. Go back to the oldest nations, the first transmitters of our culture, and what will you find? The exploitation of some through others; the exploitation of wife and child and slave; the exploitation of family through the lord. The former obeyed, the latter ruled and enjoyed. The former worked while to the latter the first cultivated land and produce of the labor belonged. This exploitation of the family through the lord is as old as the division of labor. It is as old as law. Only before the division of labor did this condition not exist."

"Consider the tribe of a hunting people, that social union which first preceded the division of labor. Here there was no division of labor and no exploitation. Here all were free. Here to each one belonged the game he shot and the tools with which he shot it. Here also the soil belonged to the tribe, to one member of it as much as to another. Here there was no lasting subordination of some to others. Here conquered enemies were put to death."

"All the beginnings of our sad legal and social conditions are products of economic necessity. If each one had only so much booty as was necessary to support himself and his wife alone and to feed his children, no one could live at the cost of another. Under such conditions there could be no subordination. The conquered enemy must be killed. With the division of labor on the other hand, with agriculture which made work more productive and enabled some to live from the product of others, begins also slavery. Connected also with the first economic advance and with slavery was the first step in advance in justice, for then ceased the killing of the

⁴ *Schriften*, I, 120-126.

conquered enemy. Then began the exploitation of some by others. History does not furnish us an example of any people among whom the first beginnings of the division of labor and of agriculture were not connected with economic exploitation and in which the burden of work did not fall to one class and the fruits of it to another; in which, in other words, the division of labor did not assume the form of the subordination of one class to another."

According to Rodbertus's view, therefore, rent, interest, and profits are exploited incomes and their existence as shares in the social product is characteristic of the stage of social development we have reached, a stage which, compared with those which preceded it, represents a closer approximation to justice and a nearer approach to the realization of the rights of men but not perfection, a stage which is destined to give place to another which will more closely approximate the ideals of justice and be accompanied by a much higher level of human well-being.

This stage is just before us and, according to Rodbertus, is likely to be developed through the agency of the laboring classes. In his *Die Forderungen der arbeitenden Klassen*⁵ he expressed this idea with great force and clearness. He asks what it is that the laboring classes desire, and answers that it is political power—not, however, as an end in itself but as a means to an end, namely, the increase of their incomes and the attainment of a position which will enable them to enjoy the advantages of advancing civilization and culture. Modern culture, he says, "is based upon education and subjects the individual to an idea or an ideal rather than to a group of persons, the realization of which idea or ideal is the goal of his own individual activity and is to be realized through science, art, association and the state. The old system of culture has practically passed away, only a few remnants of it remain. The new system has not yet been realized but is in progress. It is the system of the future. There will be no turning back, its ultimate accomplishment is inevitable."

He next asks whether the desires of the people will be withheld from them by others, and he answers that there is no such possibility. The laboring class constitutes a vast majority of mankind. When they come to a realization of their rights and their powers, the accomplishment of their desires cannot be prevented.

In the third place, he asks whether the realization of their desires will constitute the grave of modern culture. He answers that, on the

⁵ *Ibid.*, II, 195 sq

contrary, the satisfaction of the desires of the laboring class, far from being the grave of modern culture, will be the means of its rapid advancement. "Owing to the power which the possessing now exert over the laboring classes, the latter are deprived of the opportunity to increase the productivity of society, and the possibility of advancement of all classes is enormously diminished."

The most striking results of the exploitation of the laboring classes and the chief evils of modern economic society, according to Rodbertus, are poverty and commercial crises. By the former he means, not absolute want, but an income inadequate to the satisfaction of needs largely socially created. According to his view, "a man's poverty does not depend so much upon what he has absolutely, as upon the relation in which his possessions stand to those of others about him and upon the extent to which they allow him to share in the progress of the age. A cannibal in the Sandwich Islands is not poor because he has no coat; an Englishman is. When the vast majority were unable to read, a man was not poor or oppressed because he was unable to purchase books, but a German who to-day has not the means to do so is both poor and oppressed."⁶ This condition of relative want is brought about by the fact that under present conditions laborers are paid merely enough to enable them to maintain their standard of life, and while this slowly rises, it does not keep pace with the increase in the productivity of labor, so that the working classes are *relatively* falling constantly behind.

This same condition, according to Rodbertus, also explains commercial crises. Starting with a state of equilibrium in which there is being produced for the laboring and every other class just the quantity of goods it is able to buy, the increase in the productivity of labor, and saving and investment in productive enterprises by the landlord and capitalist classes, soon bring about a condition of things in which laborers are unable to purchase the goods produced for them. A glut on the market follows, with falling prices, production at a loss, closing factories, unemployment and the other phenomena of crises. This condition is due to the fact that, because the landlord and capitalist classes cannot and do not consume their incomes, but invest a considerable portion of them in productive enterprises, increased productivity can only result in more goods for laborers which they are unable to buy since their incomes have not proportionately increased.

⁶ Ely *French and German Socialism in Modern Times* (1883), p. 164.

The remedy for these evils Rodburtus did not expect to result from the operation of natural law or from the régime of laissez-faire recommended by the classical economists. He believed that the intervention of the state is necessary, especially in the realm of distribution. In his monograph entitled *Der Normal-Arbeit-Tag* he outlined a plan which he thought the state should follow. He proposed that in each industry there should be established a normal day's work and that statistics should be collected indicating the number of such days' work required in the production of each commodity and that exchange between these should be allowed in accordance with the ratios indicated by these figures. In the distribution of the product he proposed that to the state should be assigned such a portion as is required for its proper functioning and to landlords and capitalists an adequate remuneration for the sacrifices the reform imposes upon them, and that the remainder should be distributed among the laborers in accordance with the number of normal days' work or fraction thereof each performs in a day. One laborer in ten hours might turn out much more, possibly several times, the normal day's work, whereas another might turn out only a fraction of it. He proposed that wages be readjusted every time there is a change in the productivity of labor, thus guaranteeing to laboring men a proportionate share in every increase.

In the opinion of Rodbertus, this reform would remedy the evils of poverty and commercial crises. The former, by enabling the laborer to share proportionately in the increased productivity of labor, the latter by distributing income in such a way that the total product of society could always be purchased back by those for whom it had been produced.

B. KARL MARX

Karl Marx was born of Jewish parents in Trier, Germany, in 1818. His father was a lawyer in the service of the Province in which Trier is located and was able to give his gifted son the best of educational opportunities. In the *Gymnasium* in which he studied Karl exhibited unusual intellectual powers and made a fine scholastic record, but at the Universities of Bonn and Berlin his mind was in such a turmoil and he was so occupied with a love-affair that he did indifferent work. During this period he was passing through the mental and spiritual crisis which made philosophy and economics instead of law his life study and the education of the proletariat and agitation for social re-

form his career. His love-affair resulted in an early marriage with Jenni von Westphalen, a young woman belonging to a family of rank and influence, who made him a devoted wife.

During his university course Marx's tastes inclined him toward an academic career, but he was unable to secure a university appointment on account of his radical tendencies, the Prussian government at the time being in a state of reaction against liberal movements. Forced by his marriage to find a means of earning a livelihood, in October, 1842, he accepted the position of editor of the *Rheinische Zeitung* and at once began a vicious attack upon the policy of the Prussian government relative to freedom of the press and of association which resulted in the suppression of his paper.

This was the beginning of a tempestuous epoch in his career in which he resided for short periods, first in Paris, which he was invited to leave by Guizot, one of Louis Philippe's ministers, then in Germany once more where he edited the *Neue rheinische Zeitung*, which like its predecessor, was suppressed by the government; then for a short time again in Paris, from which he was driven by the police finally to take up his residence in London, where he remained during the rest of his life. He died March 14, 1883.

During his first sojourn in Paris, from March, 1843, to January, 1845, Marx came into contact with the French Socialists and with those of other countries, who like himself were making the French capital a temporary refuge, and studied socialistic literature. His own thinking and association with the young Hegelians at Berlin had previously made him an extreme liberal in politics and philosophy and he now became a Socialist, being considerably influenced no doubt by Saint-Simon's philosophy of history and by conditions in France which just at that time were ripening for the revolution of 1848. He joined a group of radical exiles which had been organized here and conceived with them the project of educating and organizing the proletariat of the world for the socialistic revolution which he believed was approaching.

One of the episodes in the history of this project was the attempt to weld into a great international organization the groups of radical exiles locally organized in Paris, Brussels, London, and some other cities. This idea had been discussed with Marx during his first sojourn in Paris and, when he went to Brussels in January, 1845, he made its realization one of his chief goals. At this time he had formed a close affiliation with Frederick Engels, the son of a manufacturer of Barmen,

Germany, and part owner of a cotton factory in Manchester, England, and with him visited London in the summer of 1845, when he discussed this proposed international organization with the Communistische Arbeiter Bildungsverein, which assumed leadership in the project and asked Marx to prepare a program of procedure and a statement of principles. The result was the famous *Communist Manifesto* in which Marx called upon the proletarians of the world to organize for the overthrow of the capitalistic system and formulated the principles which he thought should guide them. Then followed the organization of a Communistic League for the spread of the doctrines set forth in the *Manifesto*.

The short period occupied by the revolution of 1848 in France and its reverberations throughout Europe was followed by a reaction which was unfavorable to the spread of the doctrines of the *Manifesto* and the success of the Communistic League. Marx's first years in London were, therefore, chiefly occupied in study and writing. In 1859 he published *Zur Kritik der politischen Oekonomie* and in 1867 the first volume of *Das Kapital*.

In 1864 he revived the project of creating an international organization of the proletariat in the form of the so-called International Labor Party. He became the executive head and leading spirit of this organization, which, however, finally came to shipwreck on the rock of internal dissension. With all his devotion and ability, Marx could not work in successful coöperation with his fellow-radicals. He quarreled with Proudhon and Bakounine, and the party split into warring factions. The chief bone of contention was violence versus evolution as a means to the end toward which the Socialists were working. Marx stood rigidly for the latter, believing the world was moving inevitably and rapidly in the direction of socialism and that violent methods would retard, instead of facilitate, the movement.

Upon his death in 1883 he left unfinished manuscripts which his lifelong friend and coworker, Engels, completed and edited, publishing them in 1885 and 1893 as volumes two and three, respectively, of *Das Kapital*.

As an economist Marx is chiefly known for his doctrines of value, surplus value, and historical evolution. In *Das Kapital* he aimed to present a complete system of political economy and, barring some degree of incompleteness due to the unfinished condition in which he left his work, he succeeded.

He based his doctrine of value on the labor theory expounded by

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Adam Smith and Ricardo, modifying it, however, by substituting *the amount of labor socially necessary for the amount actually expended* as the regulator of the ratio of exchange. By "socially necessary labor" he meant the amount to be employed considering all the conditions of production of the time, including skill, organization, technique, etc.

His proof of this proposition is abstract in the extreme and negative in character. The exchange of goods he claimed implies the existence of something common to them, and he sought to determine what that common element is. He shows that it cannot be any physical property and assumes that it must be labor. Since it is easy to show that things exchange for each other in proportions very different from those determined by the actual amounts of labor incorporated in them, he assumed that they must exchange in proportion to what he called the amounts socially necessary for their production.

"Surplus value," according to Marx, arises at a certain point in the evolution of exchange. After barter comes money-exchange, the formula for which is C-M-C; that is commodities are exchanged for money and money for commodities, the purpose being the securing of use values better adapted to the needs of the exchangers. In the process of time another form of exchange evolves with a different purpose. The formula for this is M-C-M; that is, money is exchanged for commodities and commodities again for money. The purpose of this exchange cannot be the securing of use values better adapted to the satisfaction of wants, since the beginning and end of the process is the same commodity, money. The only purpose of it, therefore, must be the obtaining of more money. That is possible only when the second M is larger than the first. The difference between the amounts of these two M's Marx called *surplus value*.

The stage of economic evolution in which this method of exchange dominates he characterized as the capitalistic stage and money exchanged against goods for the purpose of using the goods for the obtaining of more money, according to his definition, is capital *par excellence*.

The only commodity which can serve in the process of exchange that creates surplus value is labor, since it is the value-creating substance. When it is bought and sold on the market, like any other commodity its exchange value is determined by the amount of labor socially necessary for its production, that is by the amount necessary to produce the food, clothing, shelter, and other things required to maintain and reproduce the laborers. When this amount is less than

the amount purchased, as it normally is, surplus value results, since the value of the goods produced by the labor is greater than that of the goods paid out in wages, the first M in the exchange formula thus being less than the second.

According to Marx, the condition in which the production of surplus value is the leading function of economic society has been brought about historically by the evolution of the proletariat. So long as labor was in a condition of slavery or so long as it owned and used its own instruments of production and there were no large accumulations of capital, a real proletariat did not and could not exist. Only when labor is free, when it has become entirely separated from the instruments of production, and is obliged to offer itself for sale as a commodity on the market, and when capital has accumulated to such an extent that the means and the motive for its purchase exist, can proletarianism appear.

That combination of conditions, according to Marx, occurred for the first time about the middle of the seventeenth century, a time which marks the beginning of what he called the manufacturing period, which extended to about 1770. This period was characterized by the division of labor and its coöperation in simple industrial operations. By that time capital had accumulated in considerable quantities in the hands of the trading class, which had grown rich largely through foreign commerce. The division and coöperation of labor increased its productivity enormously, and the old type of artisan working by himself or assisted by a few apprentices, unable to compete with the new capitalistic establishments, gradually disappeared.

This stage was succeeded by the machinery and factory stage, which has extended to the present day. This stage is characterized by modern machinery and the growth of the modern factory with its new type of division of labor, its marvelous use of natural forces, and its tremendous increase in the productivity of labor. If the independent laborer employing his own capital and land could not compete with the capitalistic production of the manufacturing period, still less can he do so in modern times. The machine era, therefore, made proletarianism universal and completed the process of evolution by which the economic world has been divided into the property-owning and propertyless classes, or, as Marx preferred to call them, the capitalist and proletarian classes.

This process of evolution, according to Marx, has made surplus value the dominant economic force of modern society. Originally

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capital was accumulated through saving, but for many generations it has been accumulated solely from surplus value. Marx tried to show that its continued and continual accumulation is inevitable and that its accompanying condition, a hopeless proletariat, is equally inevitable.

Surplus value means exploitation of the laboring class, and the income of capital, which takes the form of rent, profits, and interest, is its result.

The next stage in the evolution of economic society, according to Marx, will be characterized by the expropriation of the capitalist class and the development of a socialistic organization of industry in which surplus value will disappear and the total product of labor will be distributed among laborers.

PART IV
ATTEMPTS TO RECONSTRUCT THE SCIENCE

CHAPTER XVIII

CONDITION OF THE SCIENCE IN THE EARLY SEVENTIES

In the first two decades of the second half of the nineteenth century, Mill's *Principles* superseded all other books as the orthodox statement of the principles of the classical system, but there were many dissenters, even in England, and their circle widened as the years passed. The historical school, ably represented by Cliffe Leslie, steadily gained adherents, as did also the Socialists. The laboring class, which was always hostile, steadily increased in influence. Controversy regarding the fundamentals of the science never ceased. In 1857 J. E. Cairnes wrote: "Such questions as those respecting the laws of population, of rent, of foreign trade, the effects of different kinds of expenditure upon distribution, the theory of prices—all fundamentals in the science—are still unsettled, and must be considered as 'open questions,' if that expression may be applied to propositions which are still vehemently debated, not only by sciolists and smatterers, who may always be expected to wrangle, but by professed cultivators and recognized expounders of the science."¹

A. JOHN E. CAIRNES

To remedy this condition, John Elliot Cairnes, professor of Political economy from 1856 to 1859 in Dublin and later in Queen's College, Galway, and from 1866 to the time of his death in 1875 at University College, London, undertook the defense of the classical system in a series of lectures delivered in Dublin in 1857 and subsequently published in book form under the title *The Character and Logical Method of Political Economy*.

Cairnes believed that much of the controversy was due to a widespread misconception of the subject-matter and nature of the science. Some persons,² he said, had attempted to extend the former beyond the realm of the "phenomena of wealth" and to include in it "facts pre-

¹ J. E. Cairnes, *The Character and Logical Method of Political Economy*, 2d ed. (New York: Harper & Brothers, 1875), p. 20.

² Notably Jean-Baptiste Say and Auguste Comte.

sented by man's moral and social nature" and thus to make of it a pseudo instead of a real science. He insisted that wealth and wealth only constitutes the subject-matter of political economy and that it is a science in the same sense that physics, chemistry, and biology are sciences. "What Astronomy does for the phenomena of the heavenly bodies; what Dynamics does for the phenomena of motion; what Chemistry does for the phenomena of the functions of organic life, that Political Economy does for the phenomena of wealth; it expounds the laws according to which those phenomena co-exist with and succeed each other; that is to say, it expounds the laws of the phenomena of wealth."³ According to this view, political economy is not concerned with the solution of moral and social problems. Its aims are not practical but scientific. It may and does throw light upon practical problems, but their solution requires light from other sources as well. They are always complex. "Whatever," he said, "takes the form of a plan aiming at definite practical ends—it may be a measure for the diminution of pauperism, for the reform of land-tenure, for the extension of coöperative industry, for the regulation of the currency; or it may assume a more ambitious shape, and aim at reorganizing society under spiritual and temporal powers, represented by a high-priest of humanity and three bankers—if its object be to accomplish definite practical ends, then I say it has none of the characteristics of a science, and has no just claim to the name."⁴ He felt that it was because uninformed people held political economy responsible for the attainment of practical ends that they condemned it when such ends were not attained or when they disapproved of the ends themselves.

He also insisted that political economy is a "hypothetical" science in the sense that its doctrines "though based upon indubitable facts of human nature and of the external world, do not necessarily represent, and scarcely ever precisely represent, existing occurrences." Like those of the physical sciences, they "are to be understood as asserting, not what *will* take place, but what *would* or what *tends* to take place, and in this sense only are they true."⁵ These doctrines are *deduced* from premises derived from "ultimate facts" drawn "from the world of matter and from that of mind" such as "the general desire for physical wellbeing, and for wealth as the means of obtaining it; the intellectual

³ *Logical Method*, p. 35.

⁴ *Ibid.*, p. 34.

⁵ *Ibid.*, pp. 68, 69.

power of judging of the efficiency of means to an end, along with the inclination to reach ends by the easiest and shortest means—mental facts from which results the desire to obtain wealth at the least possible sacrifice”; “those propensities which, in conjunction with the physiological conditions of the human frame, determine the laws of population”; and “the physical qualities of the soil, and of those other natural agents on which the labor and ingenuity of man are employed.” These ultimate facts do not comprehend all the influences that affect the phenomena of wealth. There are others which Cairnes characterized as “subordinate influences” which “intervene to disturb, and occasionally to reverse, the operation of the more powerful principles and thus to modify the resultant phenomena.”⁶

In a book published in 1874, entitled *Some Leading Principles of Political Economy Newly Expounded*,⁷ Cairnes attempted to strengthen the classical system by correcting and improving the statement of some of its principles. The topics treated are value, labor and capital, and international trade. Under the head of value he found fault with the manner in which the masters of the science had handled the doctrines of demand, supply, and cost of production. Regarding demand and supply he suggested that a distinction should be made between the use of the terms as aggregates under a régime of barter and as applicable to particular commodities under a monetary régime. In the former case they are not “independent phenomena” but “strictly connected and mutually dependent,” an increase or decrease in the one “necessitating and implying a correspondent increase or diminution in the other.” This is due to the fact that, goods being exchanged against goods, each commodity is “Supply in reference to the person seeking to obtain it and Demand in reference to the person” using “it as the means of obtaining something else.” The aggregate demand of all people for goods and the aggregate supply of goods are, therefore, identical. Applied to particular commodities, however, under a monetary régime demand and supply, he thought, are distinguishable, demand “being the desire for commodities or services, seeking its end by an offer of general purchasing power”; and supply, “the desire for general purchasing power, seeking its end by an offer of specific commodities or services.”⁸ He noted, however, that both demand and supply in this

⁶ *Ibid.*, pp. 56, 57.

⁷ Published by Harper & Brothers, New York, 1874.

⁸ *Ibid.*, p. 25.

case vary with price, and that a comparison between them which would enable one to say that one is greater or less than the other always has reference to "some assumed price."

Cairnes carefully analyzed the doctrine that cost of production is the regulator or determinant of natural or normal value, with the result of limiting the scope of its application to a much narrower field than had been assigned to it by Ricardo and Mill and of measuring it by the sum total of the sacrifices, rather than of the expenses, of production. The fundamental premise of the reasoning by which he arrived at these conclusions is that cost of production determines normal value only in cases in which competition operates perfectly, that is, in cases in which capital and labor can and do move freely from points of lower to those of higher returns. Whenever there are obstacles to such movements, the doctrine either does not hold at all or holds only imperfectly.

Such obstacles he found not only in international trade, as had Mill and others, but also in domestic trade between what he called "non-competing groups." These are groups made up of laborers of, so to speak, different strata who "for all purposes of effective competition" are "practically isolated from each other." He described these groups as follows: "First, at the bottom of the scale there would be the large groups of unskilled or nearly unskilled laborers, comprising agricultural laborers, laborers engaged in miscellaneous occupations in towns, or acting in attendance on skilled labor. Secondly, there would be the artisan group, comprising skilled laborers of the secondary order—carpenters, joiners, smiths, masons, shoe-makers, tailors, hatters, etc., etc., with whom might be included the very large class of small retail dealers, whose means and position place them within the reach of the same industrial opportunities as the class of artisans. The third layer would contain producers and dealers of a higher order, whose work would demand qualifications only obtainable by persons of substantial means and fair educational opportunities—for example, civil and mechanical engineers, chemists, opticians, watch-makers, and others of the same industrial grade, in which might also find a place the superior class of retail tradesmen; while above these would be a fourth, comprising persons still more favorably circumstanced, whose ample means would give them a still wider choice. This last group would contain members of the learned professions, as well as persons engaged in the various careers of science and art, and in the higher branches of

mercantile business." ⁹ Within each of these groups labor moves freely, according to Cairnes, and the law of cost holds; but between them there is not such freedom of movement, and the normal rate of exchange in this case is determined not by cost of production but by "reciprocal demand," which means such a demand of each group for the products of the others as will enable the products of each to pay for those of all the others for which they are offered in exchange.

Of the two conceptions of cost of production represented respectively by Senior and Mill, namely (a) the sacrifices involved in production, that is, labor sacrifice plus abstinence plus risks, and (b) the expenses of production, that is, wages plus cost of raw material plus depreciation of fixed capital plus taxes, etc., etc., Cairnes chose the first, apparently on the ground that "cost means sacrifice and not reward." I say "apparently" because he does not adequately criticize or analyze the expense concept or contrast it with the one he approved. He did thoroughly analyze the sacrifice concept and concluded that "the sacrifices to be taken account of and which govern exchange value, are, not those undergone by A, B, or C, but the average sacrifices undergone by the class of laborers or capitalists to which the producers of the commodity belong" ¹⁰ and "that the relation which competition establishes between cost and value is one, not between the value of particular commodities and the sacrifices of the individual or individuals who have produced each commodity, but one between commodities taken as sorts and their cost of production. We cannot, for example, assert that a particular pair of shoes will exchange against a particular coat in proportion to the sacrifices undergone respectively by the shoe-maker and the tailor in the actual case; but we may assert that, within a given field of competition, shoes, as one sort of commodity, will exchange against coats as another in this proportion." ¹¹

The second part of his book, entitled "Labor and Capital," is devoted to a defense of the wages-fund doctrine, which had been severely criticized and which Mill had abandoned. The third, entitled "International Trade," gives an exposition of the conditions of international trade and of the theory of international values, following with some emendations Ricardo in the first case and Mill in the second. In the second part he also expressed his views regarding the effects of labor-

⁹ *Principles*, pp. 66, 67.

¹⁰ *Ibid.*, p. 85.

¹¹ *Ibid.*, pp. 86, 87.

unions on wages, and in the third he criticized the arguments of the advocates of protection.

Regarding the influence of trades-unions on wages he believed that within narrow limits and under certain conditions the union might increase the laborer's income, but in general his conclusion was that "the utmost power which I am disposed to concede to Trades-Unions over wages, where they seek their ends by compelling a positive increase of investment, is that of accelerating an advance, already so to speak, in the air, and which would come in the end without their intervention."¹² The chief hope of laborers for the improvement of their condition lies, according to Cairnes, in diminishing their number and in increasing their income by becoming capitalists as well as laborers, thus drawing income from more than one source. His argument against protection was aimed chiefly at the policy of the United States and particularly against the claim that protection is necessary in order to overcome the handicap of high cost of production due to relatively high wages. He believed that the tendency of protection is to decrease foreign trade and, when carried to extremes, to annihilate it. The real issue, therefore, is between the policy of economic isolation and that of intercourse with foreign nations.

B. THE WAGES-FUND CONTROVERSY

In the preceding section mention was made of the attacks on the wages-fund doctrine which Cairnes attempted to meet in the second part of his *Some Leading Principles of Political Economy Newly Expounded*. The chief of these critics were Mr. Francis D. Longe, a London barrister, who in 1866 published a pamphlet entitled *A Refutation of the Wages Fund Theory of Modern Political Economy, as Enunciated by Mr. Mill and Mr. Faucett*,¹³ and Mr. W. T. Thornton who in 1869 published a book entitled *On Labour: Its Wrongful Claims and Rightful Dues, Its Actual Present and Possible Future*.¹⁴ In the *Fortnightly Review* for May, 1869, Mill reviewed Thornton's book and acknowledged the validity of his criticisms, thus abandoning the theory of market wages which he had expounded in his *Principles*.

This controversy was primarily due to the activities of trades-unions, which raised the question of their ability to raise wages through strikes and other forcible means. According to the current doctrine, the gen-

¹² Cairnes, *Principles*, p. 231.

¹³ Published by Longmans, Green & Co., London, 1866, and reprinted under the editorship of Professor Jacob B. Hollander in 1904.

¹⁴ Published by Macmillan & Co., Ltd., London, 1869.

eral level of wages was said to be determined by a predetermined fund of capital divided by the number of laborers and consequently to be impossible of change by trades-union or similar tactics. It was held that the wages of particular groups of laborers might be raised by trades-union pressure, but only at the expense of other groups, the real effect of the unions in such cases being to divert a portion of the wages fund from certain groups to others without raising the general level of wages.

The critics attacked the reasoning employed in support of this doctrine, especially the proposition that there is a fixed and predetermined fund devoted to the payment of wages which cannot be increased by pressure exerted by the laboring classes or other agencies. The argument consisted in part of an attempt to show that there is no such fund in the possession of individual capitalists and consequently none in the possession of the entire capitalist class. The chief source of wage payments, it was contended, is not previously accumulated capital but the proceeds of the sale of the products of labor, the portion of these proceeds to be paid out as wages not being predetermined but influenced by a variety of conditions, among them the bargaining power of laborers and the power of entrepreneurs to divert funds at their disposal from productive to unproductive uses.

The critics also attacked the use made by the wages-fund theorists of the doctrine of demand and supply in support of their proposition. In a long chapter devoted to such an attack, Thornton attempted to show that the current definitions of demand and supply were faulty and that "no definitions of them can be given consistently with which it is possible for them to determine price" and consequently wages. He also held that there is a "difference between the mode in which the really determining cause regulates the price of labor or rate of wages, and that in which it operates in prices generally."¹⁵

In attacking the demand-and-supply doctrine Thornton's procedure consisted in citing instances or examples in which the relations, as ordinarily explained, between demand and supply change without causing a change in price and in which price changes without a corresponding change in the relations between demand and supply, and in showing that these instances represent actual conditions more frequently than those in which the law of supply and demand as usually expounded holds. Ordinarily, he held, goods are not thrown unreservedly on the market, as the theory demands, but are sold over a considerable period of time at different prices until the supply is disposed of—at no

¹⁵ *Ibid.*, p. 43.

time, except possibly at the very end of the process, supply and demand and price being in the relation to each other required by the theory. He showed that prospective supply and demand, which cannot be accurately estimated, and the fear of competition play an important rôle in the price-determining process and that these forces cannot be brought into the demand-and-supply formula.

Regarding the difference between the manner in which the price-determining forces operate in the case of commodities in general and in the case of labor, Thornton notes some peculiarities of labor, namely, that it "is almost always offered for sale without reservation of price" while "other commodities never or scarcely ever are"; that it "will not *keep*"; and that it is at a disadvantage in bargaining.

C. VULNERABLE POINTS IN THE CHIEF DOCTRINES OF THE CLASSICAL SCHOOL.

In spite of the efforts of Cairnes and others to restate and correct the doctrines of the classical economists, there still remained vulnerable points and open questions which challenged subsequent theorists and which help to explain their attempts to reconstruct the science. One of them is revealed in the form in which they left the subject of value.

1. *The Doctrine of Value.*

In the treatment of this subject they built upon foundations laid by their predecessors, fully developing certain lines of thought and neglecting others.

They confined their attention almost exclusively to the problem of *exchange value*, following the lead of Adam Smith, who, while recognizing the existence of what he called *use value*, did not give it extended consideration because he failed to see its connection with the other problem. The fact which he observed that water, a commodity of the greatest utility, was practically valueless, while a diamond of small utility was very valuable, convinced him that the explanation of value must be sought elsewhere than in utility. The other members of the school shared this conviction and employed the conception of utility in the explanation of value only to the extent of recognizing it as one of the qualities which all valuable goods must possess, another being limitation of quantity in respect to need.

In the realm of exchange value, like their predecessors, the classical economists were chiefly interested in fluctuations in ratios rather than in their status at any particular point of time, and among these fluctua-

tions they distinguished those which are temporary from long-time movements, describing the former as *market* and the latter as *natural* or *normal prices*. Regarding the relative importance of these two categories of fluctuations, a difference of emphasis is noticeable among the different writers, but practically all of them centered interest and thought in natural or normal value, using the doctrines developed in its explanation as the basis of other fundamental doctrines in their system of thought.

An explanation of this fact is to be found in the conviction that natural or normal value is the point at which the value-creating forces are in a state of equilibrium, market prices exhibiting a tendency to approach this point whether at a given moment they be above or below it. Normal value seems therefore to attract or to draw market values toward itself and to reflect the operation of forces that are fundamental and permanent rather than accidental and temporary.

The classical economists agreed that the explanation of natural or normal value should be sought in the cost of production, but they were not in complete agreement regarding what should be included under that head. Indeed, an interesting progression of ideas on this subject is observable during the classical period. With Adam Smith, Ricardo, and all the earlier writers, cost of production was thought of in terms of days' labor directly and indirectly expended, but they recognized that profits must in some way be included, and Adam Smith also included the rent of land. After Ricardo rents were omitted, since it was cost of production on no-rent, marginal land that was believed to determine natural value. Ricardo also held that profits need to be considered only to the extent that they are not proportional to the amounts of labor expended. According to his view, the use of a given volume of capital goods, produced by say 1,000 days' labor, in the case of one commodity might be extended over a period of one month and in that of another over a period of two months, in which case two months' interest would have to be included in the cost of production of the second and only one month's in that of the first, so that to this extent the ratio of exchange between the two commodities would vary slightly from the proportions between the amounts of labor expended on the two commodities. Variations from the labor-cost principle due to this cause, however, Ricardo considered to be relatively small and therefore practically negligible. Ricardo also excepted from the labor-cost principle all goods not freely reproducible, such as the pictures of a dead artist, rare coins, etc., but he did not consider this exception of

sufficient importance to prevent his use of the labor-cost principle in his reasoning in the field of distribution and elsewhere.

Ricardo's method of treating the relation of profits to value was unsatisfactory. It was a recognition of the problem without any attempt to solve it. Others wrestled with it but with results little, if any, better. One attempt at solution took the form of a definition of costs in terms of the outlays or money expenses of the entrepreneur. Ricarado had reckoned costs in terms of the amount of common or ordinary labor expended, measured in days or hours, and had held that changes in wages could affect ratios of exchange only to the extent that they were greater in some industries than in others. According to the theory now under consideration, the amount paid to labor in wages or the money costs of labor to the entrepreneur plus all other necessary outlays, such as the money paid out for raw materials, wear and tear of machinery and buildings, taxes, and interest on the capital employed, constitute the costs which determine natural values.

In this theory two major difficulties are apparent. One is that it merely explains the costs of one good in terms of the value of other goods and of labor, and hence offers no real solution. The problem now becomes that of explaining wages and the value of the various cost-goods employed and interest, another value problem like the first.

The second difficulty arises from the inclusion of the entrepreneur's own profits among his outlays. Torrens called attention to this and insisted that profits could not be counted as a cost of production, but as a surplus above costs which, however, obviously must be included in normal values. He made the claim that this surplus was created by the entrepreneur himself but failed to explain how and in what way it becomes a necessary element of value.

Another attempt to solve this problem was made by Senior and others who explained costs in terms of sacrifice. These persons declared that the sacrifices put forth by laborers, plus the sacrifices of abstinence, risk, and all others involved in production, determine natural value. This explanation had the advantage of making the elements of costs homogeneous and of being ultimate. The sacrifices of production are a fact back of which it is not necessary to go for a real, final explanation, but is it true that commodities tend in the long run to exchange for each other in proportion to the sacrifices involved in their production? Do the facts of the case support this explanation?

The facts seem to support the *entrepreneur's* costs theory and, if this went to the root of the matter, it would be satisfactory; but, as we

have seen, it does not go to the root of the matter. It simply explains the value of one thing in terms of the value of others. The sacrifice theory is offered as a substitute because it goes to the root of the matter, but the sacrifices of production do not correspond with the money costs of the entrepreneur. The wages of labor are not proportional to the sacrifices of labor and do not increase and decrease with those sacrifices, nor does the profits element of costs correspond with the sacrifices of abstinence.

The classical economists conceived of market values as variations from or fluctuations above and below natural values and explained them by the formula of demand and supply inherited from their predecessors. Some of them used the formula with more precision than others, but no one of them analyzed the forces back of demand and supply in such a manner as to reveal ultimate causes. These they sought in natural value, apparently not realizing that there was anything to be explained in market values except fluctuations about this norm.

Demand and supply were commonly explained as the quantities of a good respectively bid for and offered on the market. If these quantities are not identical, fluctuations in the exchange ratio take place, upward in case the amount bid exceeds the amount offered and downward in the opposite case. Some price was always assumed at which the bids and offers are made, and it was recognized that changes in this price would modify both the amounts bid and the amounts offered, the former increasing and the latter decreasing with a fall in the price and the opposite with a rise in the price. Thus was established a mutual interdependence between demand, supply, and market value without any real explanation of any one of them. It was recognized that an equation of demand and supply might be effected at many points above or below the natural price, but no one of the classical economists offered an explanation of what determined the price at which these various equilibria are established. The nearest approximation to such an explanation was the claim of Malthus and others that intensity of demand, whatever that might mean, had something to do with the matter, but how that could and did determine a price was not shown.

Demand and supply, thus imperfectly explained, were also relied upon by the classical economists for the explanation of the value of all goods not freely reproducible, including partially or wholly monopolized goods, and Senior had shown that most goods fall in this class. In the later classical period the doctrine of demand and supply thus

assumed relatively greater importance, but this change of emphasis was not adequately reflected in other fields, notably in that of distribution.

2. *The Theory of Distribution.*

In the explanation of the distribution of wealth the Ricardian doctrine had no competitors among the classical economists. Some additions to and slight modifications of his reasoning were made, but the main features of the theory remained unchallenged in the school itself. It was the classical doctrine *par excellence*.

The onslaughts made upon this doctrine by various groups of critics have been indicated in preceding chapters. There remain for consideration certain defects of a different character which were not without influence on the developments of the future.

One of these was the failure to recognize the entrepreneur as an independent claimant to a share in distribution, of coördinate and equal rank with the laborer, the capitalist, and the landlord. Profits in the Ricardian doctrine were clearly a composite, the elements of which needed to be distinguished and explained. John Stuart Mill made a beginning in this direction, but much more was needed to meet the demands of a satisfactory explanation.

A solid foundation was not laid by the classical economists for the doctrine of no-rent land so fundamental in the Ricardian theory. On the assumption of the existence of free land, readily available, the doctrine was easily defensible, but this assumption is tenable only at relatively early stages in the history of nations. The time is bound to come when all land will be appropriated. Will there then be no-rent lands? The classical economists answered, Yes. When the lands are once rented, the tenants will apply to their cultivation capital and labor in such quantities that the last doses will just repay wages and interest. But what will happen when the leases expire? What will prevent the landlords from then raising the rents? The capitalists and laborers cannot prevent them by using the club of free land. They must have the landlord's land, a condition of things which prevents the competition between landlords essential to the working out of the no-rent doctrine. Thus leaving the no-rent doctrine in the air, so to speak, opened to attack the entire Ricardian theory of distribution.

The standard-of-life doctrine of wages was also one of the essentials of the Ricardian theory of distribution, but it was defective in that no adequate explanation of the determining factors in the standard of life itself was offered. Assuming the standard of life to be that quantity of

necessaries, comforts, and luxuries to which the laborer has become so accustomed that any change in it affects his "population habits," it may be urged that his wages over a long period of time determine that quantity and that a change in wages extending over a considerable period changes his standard. What needs explanation then is wages, the standard of life depending upon them instead of vice versa.

The state in which the wages-fund doctrine was left by the critics has already been indicated. Mill abandoned it without supplying a substitute, and both market and natural wages were thus left in the air, so to speak, without satisfactory explanation.

The most important additions to the Ricardian theory of distribution made by other economists in England and elsewhere were the explanations of interest they offered. Ricardo treated interest under the head of profits as a residual share after the deduction of rent and wages and offered no other explanation of it. The explanations offered by others have been classified by Böhm-Bawerk as productivity, use, abstinence, exploitation, and labor theories.

According to the productivity theory, interest is explained as the result of the productivity of capital, which is regarded as a factor in production coordinate with nature and labor. It is, so to speak, the wages of capital and is paid from wealth which capital itself creates. Adam Smith, and possibly Ricardo and others, held that what was paid to the capitalist was the product of labor and natural agents, deducted after society had become organized on the basis of the division of labor, a product all of which labor received in that primitive state which preceded such organization. The idea that capital actually produces wealth in the same sense that labor and nature do was a clear addition to the Smith-Ricardo doctrine.

The difficulty with the productivity theory was the failure of its advocates to appreciate the fact that interest is a problem of surplus value. To explain it one must account for the fact that the product of capital is valued more highly than the capital itself, interest being the difference between these two valuations. Merely to demonstrate that capital is productive is not enough. The question is, Why should the product of capital, whatever it is, be valued uniformly more highly than the capital goods which enter into it? This question was not answered by any member of the classical school.

According to the use theory, interest is explained as the payment for the uses of capital, these being conceived as objects of valuation, in addition to and independent of the substance of the capital itself.

The difficulty with this theory consists in the impossibility of demonstrating the existence of these independent uses. The fact is that the use of capital is simply and only the consumption of the substance of the capital itself, and the valuation of those uses is simply and only the valuation of the capital itself. The surplus value which constitutes interest thus remains unexplained.

The abstinence theory of interest is an offshoot of the sacrifice theory of value, the sacrifice of labor accounting for the value of the substance of capital and that of abstinence for interest. As compared with the productivity and use theories, this one has the merit of being a substantial explanation which does not vanish before an analysis of the substance of the theory itself. There is such a thing as abstinence, and it is a sacrifice different from that of labor, but does it account for interest?

The only support this explanation of interest has is supplied by the sacrifice theory of value, and that theory, in the form in which it was presented by the classical economists, was early seen not to be in accord with facts. As we shall show in subsequent chapters, the sacrifice theory has been revived in a modified form, and with it the abstinence theory of interest, but the classical form of this theory fell with the theory of value on which it was based.

The exploitation theory of interest was the one offered by the Socialists, who regarded labor as the only value-creating force and the capitalist as not only a non-producer but an exploiter whose income is taken from labor by force and without any justification in morals or economics. This theory was, of course, repudiated by all opponents of socialism and never had any standing outside of the Socialists' ranks. It has no theoretical basis except the labor theory of value which, as we have seen, was the first of the value theories to be undermined and cast on the rubbish heap.

Some suggestions were made during the classical period looking toward the explanation of interest as the wages of a special kind of labor performed by capitalists. The indirect labor involved in the production of the substance of capital itself was referred to by nearly all the classical economists in connection with their discussions of value, but few of them associated it with the explanation of interest. To this rule, however, James Mill was an exception. He seemed to think that interest might be regarded as a kind of wage for this labor, but he completely failed to show how this labor could produce an

addition to the value of the capital itself, that is, the surplus value which constitutes interest.

Courcelle-Seneuil and other Frenchmen spoke of the effort of intellect and will involved in the accumulation and conservation of capital as a special kind of labor performed by capitalists, the payment for which constitutes interest, but it is obvious that this labor is only another name for abstinence and that this explanation is simply a form of the abstinence theory. Another form of this theory was later developed in Germany, but it belongs to the post-classical period and need not, therefore, be considered here.

3. *The Doctrine of Capital.*

The classical economists also left the important subject of capital in a state of considerable confusion. They inherited this concept from the Physiocrats, who had handed on in a modified form a still earlier one. Originally the word meant *a sum of money loaned* and was used to distinguish that sum from the interest that was paid for it. During the discussions of the middle ages and early modern times regarding the legitimacy of interest on loans, the word came to be applied to the goods purchased by means of the money loaned as well as to the money itself, it being observed that it was the productivity or other profitable uses of these goods that justify interest. Turgot broadened the conception still more by applying it to the entire stock of saved or accumulated goods.

Adam Smith observed that Turgot's conception was too broad, since it included goods destined for immediate consumption only as well as those which were to be used as the basis of income or interest. He, therefore, proposed to confine the use of the term to the latter group and within that group to distinguish a still narrower one, namely, those goods which serve the nation as a means of acquiring other goods. This latter group consists exclusively of goods used in production, since a nation can get income from goods in no other way. Individuals, of course, may get an income from certain forms of consumers' goods, such as houses, masquerade dresses, furniture, etc., by loaning them to other individuals who use them as consumers' goods. Smith thus excluded from the category of capital consumers' goods not used by individuals through the loan process as a means of acquiring income, but included consumers' goods which were so used as well as all producers' goods, which he recognized as a separate

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subclass since they had the distinction of being both a means of production and a means of income to the nation.

It is noteworthy that Adam Smith tied together by the name *capital* two categories of goods possessing very different characteristics, namely, loaned consumers' goods and producers' goods, because of the accidental circumstance that both serve as the means of acquiring income, notwithstanding the fact that the process by which the one category accomplishes this result is very different from that of the other, namely, by being *loaned* in the one case and by being *produced* in the other.

The term *capital* continued throughout the classical period to be used in the two senses suggested by Adam Smith. In discussions of the subject of distribution it meant the basis of interest or that for which interest is paid, and in discussions of production it meant goods which were used in the production of other goods or as a factor of production, coördinate with nature and labor. It was customary to pass unconsciously from the one use of the term to the other, often with confusing results, notably when the productivity of capital was assigned as the cause and explanation of interest, the fact that interest is paid for that category of capital which is not productive, as well as for that which is being forgotten or at least neglected.

In the solution of the problems associated with capital, conceived either as a factor of production or as a source of income, the classical economists made little more than a beginning. They were agreed that capital owes its existence to saving, and this doctrine has persisted without essential modification, but they were not all agreed regarding the manner in which capital produces. Adam Smith's idea that it does so by "setting labor in motion" was accepted by all and bore fruit in the form of Mill's propositions that industry is limited by capital and that demand for commodities is not a demand for labor and in the wages-fund doctrine, but Smith's idea was supplemented by the idea advanced by Lord Lauderdale, Colonel Torrens, and others that it also supplants labor and performs work which labor cannot perform, that is, that it is an independent production agent, working side by side, *with*, and not simply *through*, labor. The facts that neither of these ideas applies in the same degree and perhaps in no degree to all capital goods and that each one characterizes different categories of goods and the consequent danger of using either one in reasoning about capital conceived as a factor in production were not fully appreciated.

The crude and undeveloped form of the various doctrines associ-

ated with the capital concept is indicated by Mill's four propositions. That industry is limited by capital is, of course, true *in a sense*, but it is no more true than that industry is limited by labor and by natural resources. It is not a proposition which one can safely make a fundamental premise in reasoning. The same may be said of the proposition that a demand for commodities is not a demand for labor. That capital is the result of saving is the only one of the four which embodies a fundamental truth. The proposition that capital, though saved, is nevertheless consumed is a paradoxical statement of the simple fact that capital goods enter as elements into other capital goods or into final consumption goods, but it contains no doctrine of significance.

4. *The Doctrine of Progress.*

Probably the most important deduction made from the classical doctrine of distribution was that in a progressive community, that is, one in which population and capital continually increase and improvements in the technique and methods of agriculture, industry, and commerce continually take place, rents continually rise and profits continually fall, and wages remain stationary. Mill carried this process of deduction to the point of showing that progress of this kind must ultimately slow down almost to a vanishing point, since profits must ultimately reach an irreducible minimum at which point capital and population will cease to increase except to the very slight extent rendered possible by improvements in technique and methods, by the emigration of capital and labor to other countries, and by crises. Mill attempted to remove the pessimistic sting from this conclusion by arguing that such a state was to be desired, provided, before it be attained, the standard of life of the masses of people be raised to a point at which the necessities and some of the comforts and luxuries of life would be guaranteed them.

These important conclusions were deduced from Ricardo's simple theory of distribution, and grave doubt was thrown upon them by the modifications and additions to that theory which were made during the classical period and which have been described in the pages immediately preceding. If the capitalist is not to be regarded as the residual claimant in distribution, and if interest is to be explained in accordance with the productivity, the use, or the abstinence theory, if there is or may be rent on marginal lands, if value is not to be explained by cost of production in any of the senses in which that term was used by the classical economists, if the standard of life is the result and not

the determinant of wages, the reasoning back of the classical doctrine of progress does not hold and the entire question of the effects of progress upon distribution is open for reconsideration. Either the classical doctrine had to be abandoned or a new basis for it had to be found.

D. THE CONTROVERSY OVER METHOD

The Nationalists and the Old Historical School raised the question of the methods appropriate to the social sciences and in particular to political economy. They charged the classical economists, especially Ricardo and his followers, with the almost exclusive use of deduction from a priori premises. They recommended in contrast the inductive method, in accordance with which conclusions are reached by generalizations from the facts of experience. A discussion over methods ensued which continued into and characterized the early part of the period now under consideration.

E. MONEY, CREDIT, AND PRICES

The phenomena of money, credit, and prices played a secondary rôle in the philosophy of the classical economists in the sense that their basic theories were developed either entirely without reference to these phenomena or with reference to them as modifying influences only.

Mill's attitude toward them is expressed in his chapter on money¹⁶ in the statements (a) that the introduction of money "makes no difference in the essential character of transactions"; (b) that "there cannot, in short, be intrinsically a more insignificant thing, in the economy of society, than money, except in the character of a contrivance for sparing time and labour"; and (c) that "the introduction of money does not interfere with the operation of any of the laws of value." Adam Smith treated the phenomena of money and banking as subordinate topics in connection with the subjects of division of labor and the relation between the gross and the net revenue of society, and Ricardo worked out the laws of the distribution of wealth by first eliminating price phenomena and later considering them as modifying influences.

The characteristic features of the treatment of these subjects by the classical economists may be summarized under the heads of the functions and value of money and the relation of credit and banking to money and prices.

¹⁶ Mill's *Principles*, Book III, Ch. VII, sec. 3.

1. *The Functions of Money.*

Service as a medium of exchange was noted by them as the basic function of money, and service as a measure of value as a derivative function, the difficulties of barter being assigned as the reason for the use of the former, and the fact that every one exchanges his commodities or services for the medium of exchange more frequently than for anything else as the reason for the latter. Among the services rendered by the common measure of value Mill mentioned¹⁷ the supply of a common language of value, of the means of arranging values in a scale one above another, and of summarizing them.

Both Adam Smith and Mill noted the various commodities that at different periods in the world's history and among different peoples have served as a medium of exchange and explained the use of the precious metals in this capacity, Smith as the result of their durability and divisibility, and Mill as a result of these and in addition, of a strong "inclination in a rude state of society for personal ornament and for the kind of distinction which is obtained by rarity or costliness in such ornaments" to which he added a recognition in later stages of social development of their superior stability of value.¹⁸ Adam Smith held that for short periods of time the precious metals are more stable in value than other commodities, but that for long periods corn is the more stable.¹⁹

2. *The Value of Money.*

The classical economists explained the value of money in the same manner as that of other commodities. Ricardo and Mill distinguished between its temporary value, which they explained by demand and supply, and its long-run value (or permanent or average or natural value, all these terms being employed), which they explained by cost of production. In their application to money, however, the terms *demand* and *supply* received a special explanation, namely, that usually described nowadays as the quantity or quantitative theory.

This theory is implied in various statements made by Ricardo. In his chapter "On Currency and Banks"²⁰ he said: "A circulation can never be so abundant as to overflow; for by diminishing its value, in

¹⁷ *Ibid.*, Book III, Ch. VII, sec. 1.

¹⁸ See *Wealth of Nations*, Book I, Ch. IV; Mill's *Principles*, Book III, Ch. VII, sec. 2.

¹⁹ *Wealth of Nations*, Book I, Ch. V.

²⁰ *Works*, Ch. XXVII, p. 213.

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the same proportion you will increase its quantity, and by increasing its value, diminish its quantity." In this passage quantity is stated to be a function of value, but in subsequent discussions Ricardo revised the causal relation. For example, in explaining seniorage he said: "While the state alone coins, there can be no limit to the charge of seniorage; for by limiting the quantity of coin it can be raised to any conceivable value."²¹ (Italics are mine.) In his discussion of the value of paper money he said that "the whole charge for paper money may be considered as seniorage. Though it has no intrinsic value, yet, by limiting its quantity, its value in exchange is as great as an equal denomination of coin, or of bullion in that coin. On the same principle, too, namely by a limitation of its quantity, a debased coin would circulate at the value it should bear, if it were of the legal weight or fineness, and not at the value of the quantity of metal it actually contained."²² In his discussion of bank-note issues he adds²³: "There is no point more important in issuing paper money, than to be fully impressed with the effects which follow from the principle of limitation of quantity. . . . It is not necessary that paper money should be payable in specie, it is only necessary that its quantity should be regulated according to the value of the metal which is declared to be the standard."

In his *Proposals for an Economical and Sound Currency*, in the following passage, Ricardo referred to the influence of what he called "the uses of money"²⁴: "the value of money then, does not wholly depend upon its absolute quantity, but on its quantity relatively to the payments it has to accomplish; and the same effects would follow from either of two causes—from increasing the uses for money . . . or from diminishing its quantity; for in either case its value would rise."

Mill's exposition²⁵ of this theory may be summarized as follows: (a) The value of money, by which is meant its purchasing power, "is inversely as general prices; falling as they rise and rising as they fall." Its explanation is, therefore, concerned "with the causes that operate upon all goods whatsoever," while that of the value of other commodities is concerned "with causes which act upon particular commodities, apart from the rest."

(b) Its value as thus defined depends, Mill said, upon demand and

²¹ *Works*.

²² *Ibid.*, pp. 213, 214.

²³ *Ibid.*

²⁴ *Ibid.*, p. 398.

²⁵ *Principles*, Book III, ch. VIII.

supply, supply being "the quantity of it which people are wanting to lay out; that is, all the money they have in their possession, except what they are hoarding, or at least keeping by them as a reserve for future contingencies—in short the money in circulation at the time" and demand consisting "of all the goods offered for sale." Mill adds that "the demand for money differs from the demand for other things in this, that it is limited only by means of the purchaser. The demand for other things is for so much and no more; but there is always a demand for as much money as can be got." As a consequence of this difference, changes in the quantity of money affect its value "exactly in proportion" to the amount of the change, whereas in the case of other commodities, "the desire being for the thing itself, may be stronger or weaker; and the amount of what people are willing to expend upon it, being in any case limited in quantity, may be affected in very unequal degrees by difficulty or facility of attainment." Mill summarized his doctrine in the statement that "as the whole of the goods in the market compose the demand for money, so the whole of the money constitutes the demand for goods. . . . They are reciprocally supply and demand to one another."

(c) Both supply and demand in the case of money are affected by "rapidity of circulation." "Each pound or dollar must be counted for as many pounds or dollars, as the number of times it changes hands in order to effect this object," i.e., the exchange of the goods offered for sale, and "the greater part of the goods must also be counted more than once." Mill insists that rapidity of circulation of money does not mean the number of times money changes hands in a given period of time, but the number of times it changes hands in order to perform "a given amount of traffic." "We must compare the number of purchases made by money in a given time," he said, "not with the time itself, but with the goods sold in that time."

Mill's final statement of the quantitative law is: "The amount of goods and of transactions being the same, the value of money is inversely as its quantity multiplied by what is called the rapidity of circulation."

(d) He noted the following qualifications of this law:

First, it applies "only to the state of things in which money, that is, gold or silver, is the exclusive instrument of exchange and actually passes from hand to hand at every purchase, credit in any of its shapes being unknown." "Where credit comes into play as a means of purchasing, distinct from money in hand . . . the connection between

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prices and the amount of the circulating medium is much less direct and intimate, and . . . such connection as does exist no longer admits of so simple a mode of expression."

Second, only that quantity of money affects prices that is offered in exchange for commodities; that offered for the purchase of securities, for example, or used in speculative transactions may not affect the market for commodities. The same may be said of temporary increases in the supply of currency to meet seasonal needs.

As in the case of other commodities "the ultimate regulator" of the value of money was held by the classical economists to be the cost of production of the precious metals. The reasoning in this case was substantially the same as that employed in the application of the doctrine of cost of production to other commodities, namely, that in the long run cost of production regulates supply.²⁶ The chief differences between money and other commodities noted by Mill in this particular were (a) that the adjustment of the value of money to the cost of production is a slower process than in the case of other commodities, on account of the great quantity and durability of the precious metals; and (b) that "potential" supply does not enter into consideration in the case of money. "At prices one fourth higher," he said, "one-fourth more money would be required to make the accustomed purchases; and, if this were not forthcoming, some of the commodities would be without purchasers, and prices would not be kept up."

3. *Credit.*

The classical economists usually discussed credit in connection with the subjects of paper money and banking. Adam Smith noted the saving in the expense required for the maintenance of the capital fund of society which is effected by the substitution for coin of bank-notes, bills of exchange, and the "cash accounts" of the Scotch banks, but, except by implication, he did not note the relation between credit and prices. As indicated in the preceding paragraphs, Ricardo held not only that credit instruments, especially bank-notes, might be substituted for coin in the circulating medium, but that their value depends upon the quantity in circulation and, when not redeemable in coin on demand, is quite independent of the value of the metallic standard referred to in the figures indicating their denominations. He held that they may, therefore, become themselves standards of value and primary factors in the determination of prices.

²⁶ See chapter on "Currency and Banks," Ricardo's *Works*; Mill's *Principles*, Book III, Ch. IX.

In this case, as in so many others, Mill's discussion was more comprehensive, and in some respects his views were different. On the subject of the value of inconvertible paper currency, however, he followed Ricardo without essential modification. "We have seen," he said,²⁷ "that even in the case of a metallic currency, the immediate agency in determining its value is its quantity. If the quantity, instead of depending on the ordinary mercantile motives of profit and loss, could be arbitrarily fixed by authority, the value would depend on the fact of that authority, not on cost of production. The quantity of a paper currency not convertible into the metals at the option of the holder, can be arbitrarily fixed, especially if the issuer is the sovereign power of the state. The value, therefore, of such a currency is entirely arbitrary."

In tracing the effect upon prices of the use of other forms of credit instruments as a medium of exchange, Mill employed a different, and in some respects an inconsistent, form of argument. "I apprehend," he said,²⁸ "that bank notes, bills, or checks, as such do not act on prices at all. What does act on prices is credit, in whatever shape given, and whether it gives rise to any transferable instruments capable of passing into circulation, or not," and credit acts on prices, according to his explanation, by making "it possible for a person to offer more money than he possesses." "Money," he said,²⁹ "acts upon prices in no other way than by being tendered in exchange for commodities. The demand which influences the prices of commodities consists of the money offered for them. But money offered is not the same thing with the money possessed."

"The amount of purchasing power which a person can exercise, is composed of all the money in his possession or due to him, and of all his credit. For exercising the whole of this power he finds a sufficient motive only under peculiar circumstances; but he always possesses it; and the portion of it which he at any time does exercise, is the measure of the effect which he produced on price."

Mill further notes³⁰ that some forms of credit are "calculated to have a greater operation on prices than others" because they give "greater facility, or greater encouragement to the multiplication of credit transactions generally." He used bank-notes in comparison with bills, and bills in comparison with book credit as examples.

²⁷ *Ibid.*, Book III, Ch. XIII.

²⁸ *Ibid.*, Book III, Ch. XII, sec. 1.

²⁹ *Ibid.*, Book III, Ch. XII, sec. 2.

³⁰ *Ibid.*, Book III, Ch. XII, sec. 4.

4. *Vulnerable Points.*

In this branch of the science as in others the arguments of the classical economists were not always impregnable or complete. On the following points they required supplementing or modification or both:

(a) Without adequate argument or historical backing they assumed that the standard-of-value function is a derivative from the medium-of-exchange function and that the standard of value affects prices only as it influences the quantity of the circulating medium. The query arises, Why may not a standard of value exist quite independently of a medium of exchange and become the measure of values by being purchased by all the members of a community for consumption or other purposes without being used as a medium of exchange or before being so used and as a condition of being so used? Is there not considerable historical evidence of such independent existence of value standards and measures, for example, in Homer's account of the practice of the ancient Greeks in expressing values in terms of cattle? In that case prices are determined by a direct comparison of the commodity value of the standard commodity for consumption and other non-monetary uses with the value for the same purposes of other commodities without the intervention or even the use of a medium of exchange. If that were the case in primitive communities and before there was such a thing as a medium of exchange, may it not also be true after the development of a medium of exchange, and, if not, why not? Surely the assumption from which the classical economists made their deduction is not axiomatic and must either be adequately supported by arguments or facts or both or be abandoned.

(b) Their attempt to use the demand-and-supply doctrine in the explanation of the value of money was not altogether successful. Mill gave precision to this doctrine by showing that demand and supply can only be compared quantitatively when they mean the amounts of a particular commodity that will be purchased and offered for sale respectively *at a given price* and that these amounts are functions of this price, changing whenever it changes. In making application of this doctrine to money he substituted for a particular commodity, on the demand side, *all the commodities not only on a particular market but on all markets* and, on the supply side, all of the coin, bank-notes, etc., in circulation on all markets; that is, contrary to the requirements of his doctrine, in the case of money he expressed demand and supply quantitatively not in terms of the same commodity but of different commo-

ties, and left entirely out of consideration bids and offers *at a given price* and the conditions necessary for effective competition, namely buyers or sellers bidding against each other in order to secure the quantity they want of a particular commodity or to get rid of the quantity they have of that same commodity. Do buyers of different commodities on all the markets of a country compete with each other and do possessors of money on all these markets compete with each other in the sense in which the term *competition* is used in the reasoning employed in support of the demand-and-supply doctrine? The proposition that they do so compete is certainly not axiomatic, but requires the support of either argument or facts or both. These the classical economists failed to supply.

Mill's distinction between the demand for money and for other things on the ground that the former is limited only by the totality of one's "means" and the latter by the desire for a particular commodity is also questionable, being based apparently upon the confusion of money with purchasing power. Do people demand more coin, bank-notes, etc., than they require for making purchases from time to time? Except perhaps on very rare occasions do they desire to turn all their "means" into these forms?

(c) The explanation of the influence of what the classical economists called "rapidity of circulation" also left much to be desired. Are the rapidity of circulation of money and the rapidity of circulation of goods independent phenomena or are they mutually connected as cause and effect; and, if the latter is true, do they affect prices, and, if so, how?

(d) The effect of credit on prices was traced by the classical economists almost exclusively through its influence upon the quantity of money in circulation. Seemingly Mill made an exception in the case of other forms of credit than inconvertible notes by noting that credit enables a person to offer for goods more money than he possesses, but he did not make clear whether he meant by this statement that credit enables a person to offer for goods money in the possession of other people or money not in any one's possession; that is, whether or not he meant this as a real or only an apparent exception to the quantitative law.

The value of inconvertible notes was treated by both Ricardo and Mill as a clear illustration of the quantitative law. Both held that the value of such notes is entirely independent of the value of the standard commodity in terms of which that value is expressed. The only reason

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assigned for this belief is the quantitative law, and this proposition, so far as their treatment is concerned, stands or falls with the truth or falsity of that law.

Regarding the valuation of inconvertible notes the classical economists also failed to answer two fundamental questions:

First, are these notes credit instruments, and, if so, why is not their value to be explained in the same manner as that of other credit instruments? Surely, not simply because they are inconvertible and used as a medium of exchange. The valuation of other credit instruments with these qualifications—for example, defaulted bills of exchange—is not on that account accorded exceptional treatment, nor is their value explained by the quantitative theory. Precisely on what grounds is the valuation of these notes to be treated as exceptional?

Second, on what grounds may the fact be disregarded in their valuation that these notes, when issued in the promissory form, call for the payment of specified amounts of the commodity standard and, when issued in any other form, bear on their faces figures referring to specified amounts of the commodity standard and indicative of the values at which they are supposed to circulate? Are changes in the value of the commodity standard without effect upon the value of such notes, quite regardless of the quantity of them in circulation? If so, why?

F. BROADENED SCOPE OF THE SCIENCE AND NEW METHODS

The criticisms described in the preceding chapters and changes in economic conditions and institutions broadened the scope of the science, improved its methods, and revealed defects in the doctrines which had been developed. The classical economists had restricted themselves to a comparatively narrow field and had left untouched a wide range of economic phenomena the importance and significance of which the critics had pointed out. The Old Historical School had entered this new field and worked it in such a manner as to guarantee it against neglect in the future. The Nationalists had emphasized the practical problems which nations are obliged to solve, their changing character, and the duty of economists to aid in their solution.

The methods appropriate to these new fields were, of course, different in many respects from those employed by the classical school. They included description, analysis, comparison, and induction as well as deductions from obvious and sometimes a priori assumptions. The importance of statistics and history and the use of the results of other,

especially the social sciences, had been revealed. The fruitful use of these new methods resulted in improvements, including a check in the tendency to excessive abstraction and unreality of which Ricardo and some of his successors had been guilty.

CHAPTER XIX

SOME CHARACTERISTIC FEATURES OF THE LAST HALF-CENTURY

The magnitude and number of changes during the last half-century and the complexity of the influences that produced them render its characterization very difficult. It is difficult even to segregate those characteristics that are the most important from the point of view of their influence on the development of economics. The following are certainly noteworthy, though it may not be possible in every case to point out the precise manner in which each has affected the development of the science.

A. CHANGES IN ECONOMIC CONDITIONS

As in preceding periods, economic conditions unquestionably demand first consideration. Some of the most important of these may be described under the following heads:

1. *Technique.*

No preceding period has equaled this in the number of its inventions and in the rapidity in which they have succeeded each other. The application of science to industry, commerce, agriculture, transportation, etc., which is chiefly responsible for these inventions, has never before been made on such a vast scale and with so much success. No branch of economic activity has escaped its influence. One of the results is an unprecedented increase in the productivity of human labor and in the volume of economic goods available for the satisfaction of human wants. Another is a rapid increase in the number and variety of the machines employed in manufacturing, commerce, agriculture, and even the household. Year after year machinery has invaded, one after another, fields previously exempt, until few now remain uninvaded, and there has been a constant substitution of new and improved machines for old and obsolete ones in the fields already occupied.

This rapid and steady change in the technique of industry, agriculture, and commerce has necessitated and been accompanied by a

continuous and never-ending process of readjustment to new conditions by both laborers and entrepreneurs. The former have been compelled to seek new occupations as fast as the new machines have taken away their old ones, and they have had to find these either in the manufacture of these machines, or in their operation. In the degree that this new and improved technique has increased the output per man employed, new industries for the satisfaction of new wants or of wants previously unsatisfied have been necessary to prevent technological unemployment. The timing of these new industries to meet the displacement of labor by machinery is a delicate process for which we have not yet learned the secret, but the necessity for it in the interests of the steady and uninterrupted employment of labor is obvious.

In the case of entrepreneurs the necessity for constant readjustment to new conditions has intensified the competitive struggle and put a premium on good management, with the result that the least competent, the marginal ones, are being constantly crowded out, and reorganizations, mergers, etc., for the purpose of eliminating competition or mitigating its effects or for securing economies in operation have become regularly recurring, normal events.

New inventions, machinery, constant displacement of labor, etc., are not peculiar to the last half-century. What is peculiar is the rapidity, the constancy, and the magnitude of the scale of these movements. During this period change has become the normal instead of the exceptional thing.

2. *The Development of the Credit System.*

Doing business on credit and borrowing-and-lending are very old practices, but the scale on which both are carried on and the percentage of the total population employing them have increased at a rapid pace throughout this period and have never before attained anything like the magnitude of the present day. Buying and selling goods *on time* has become an almost universal practice, rendered necessary in part by the constantly growing distance in space and time between producers and consumers and in part by the need for the transfer of capital from those who possess it to those who wish to use it, and made convenient and economical by modern methods of transportation, the telegraph, and the telephone.

Borrowing and lending for non-productive purposes, especially for the prosecution of wars, never before approximated the magnitude attained during the World War. Indeed, wars have been steadily grow-

ing more and more expensive, and they are always financed chiefly by means of loans. Loans for purely consumptive purposes have also steadily grown in magnitude and frequency, being extensively promoted in recent times by the growth of the practice of so-called "instalment buying."

One of the consequences of this development of the credit system has been the multiplication of banks, stock and produce exchanges, clearing-houses, etc., the welding of them together into national systems of great efficiency, complexity, and sensitiveness, and the establishment of business relations between these systems which is rapidly creating a world system. The use of this machinery has become a practical necessity for everybody. No business can be carried on, let alone be successful, without it, and people who are not directly engaged in business are no less dependent upon it for the conduct of their everyday affairs, such as the payment of their bills, the investment of their savings, the collection of their incomes, the provision of the necessary financial facilities for travel, etc., etc. Governments of all grades are also dependent upon this machinery in the management of their finances.

Viewed in its broadest aspect, the development of our credit system reveals the creation not only of a constantly increasing degree of interdependence between financial institutions and between these and individuals, corporations, and governments, but also of a network of debtor-and-creditor relationships, between individuals, different branches of business, citizens and their governments, geographical sections, and nations, of almost incomprehensible complexity.

3. *Business Economy.*

The production of goods for sale upon the markets, side by side with production for the consumption of the producer and his family, and the sale of services for wages side by side with their employment in the direct satisfaction of the wants of the laborer and of those immediately dependent upon him have been contemporaneous and associated phenomena in the economy of most families since the beginnings of commerce. The proportion between these two categories of activities, however, has varied greatly in different periods, the tendency being a steady increase in that of the market category over the other. The pace at which the change in this proportion has taken place has apparently quickened quite steadily, and during the last half-century, in those countries at any rate in which economic development has been

most rapid and has reached the most advanced stage, market activities have so greatly predominated that they have become the determining factors in the prosperity of everybody. Nowadays few people can live, let alone be prosperous, unless they can sell at remunerative prices their services or the goods they are able to produce.

The consequences of this relatively new condition are many and far-reaching. Among them is the constantly increasing importance of price relations. Well-being or misery, prosperity or hard times nowadays chiefly depend upon the relation between the prices of the goods and services sold and of those bought. All net incomes in the last analysis depend upon the difference between these two aggregates. Maladjustments in prices have, therefore, become increasingly serious, since they affect larger and larger numbers of people and to a greater and greater degree condition the well-being of each person affected.

Another consequence is the increasing importance of the smooth and uninterrupted operation of the machinery of commerce, i.e., of the agencies for the transportation of people and goods, for the dissemination of information and for communication between people throughout the territory in which commerce is carried on, for the conduct of banking and the supply and regulation of hand-to-hand money, etc., etc. Any breakdown or long-continued interruption or even slowing-down in the operation of this machinery affects everybody in some degree and may become calamitous.

A third consequence is the increasing importance of the proper correlation and the intelligent coöperation of the different parts of the social organism, such, for example, as the economic, the political, and the religious. Government must and does play a constantly increasing rôle in our economic life, and the power to aid and to obstruct, to promote the harmonious operation of the economic mechanism or to prevent it, has steadily increased throughout the period here under review and was never so great as now. Religious ideas, prejudices, and institutions may also be obstructive or coöperative, helpful or harmful.

4. *Difficulty of Readjustments to Changed Conditions.*

The classical economists clearly revealed the processes of the readjustment of the different parts of the economic mechanism when changes take place and the conditions under which these processes become automatic. To this latter end they invented hypothetical cases in which they assumed absolute mobility of labor and capital, perfect competition, perfect coördination between the fluctuations of the

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volume of population and the difficulty of obtaining food supplies, etc., etc. They were well aware that these and other essential conditions were never perfectly realized, and they pointed out some of the obstacles in the way of such realization. Whatever imperfections have been or may be discovered in their analyses of the forces at work, it is certain that obstacles to readjustment to changing conditions have always existed.

During the period here under consideration, some of the most resistant and unmanageable of these have been created by more or less successful attempts at "price-fixing" in one form or another. At various points in the operation of the economic mechanism it has been possible partially or totally to stifle competition and thus to enable individuals and groups artificially to regulate prices, and this kind of regulation has rarely, if ever, had for its object the kind of adjustment to changing conditions here under consideration. Rather it has rendered rigid and more or less inflexible factors in the situation which would otherwise have been flexible and has thus aggravated the problem of readjustment by slowing up the process and forcing the flexible factors that remain to bear too large a part of the burden.

Among the influences that are responsible for this situation are the development of monopolies; the policy adopted by trades-unions always to force wages up and to resist to the bitter end any downward movement; war, especially the World War, which forced on a large scale substitution of artificial for automatic control of economic forces; and the constant increase in taxes levied practically without reference to the adjustment problem.

For another group of obstacles to readjustment to changing conditions the erection of barriers to trade between nations is responsible. The number of these has been steadily increased during the last half-century, especially in the period since the World War. For the relatively large free-trade areas within the boundaries of the German, Austro-Hungarian, and Russian Empires has been substituted a large number of very much smaller areas, separated from each other by tariff and other barriers, and the barriers that previously existed between the older nations have been raised higher and new ones created. Since the World War there has been a reversal of the tendency to enlarge national boundaries and to create larger free-trade areas which characterized the period immediately preceding.

During the period under consideration an important factor in the creation of obstacles to automatic readjustment is the entry of govern-

ments into the business field on a constantly increasing scale both as entrepreneurs and as regulators of private enterprise. In this case, as in that mentioned in the preceding paragraph, there has been a reversal of policy during the last half-century. For laissez-faire as a controlling principle in the determination of the relation of government to industry has been gradually substituted government control, and this control has not as a rule facilitated readjustment processes. Government monopolies have been just as rigid and inflexible as private, and probably more so, and control has tended to make the processes of readjustment slower and more cumbersome. Administrative regulations of government are notoriously inelastic, and changes in them and in the laws that authorize them generally lag far behind the conditions that make them desirable and necessary.

Offsetting to some extent these tendencies to create obstacles to readjustment, the last half-century has also witnessed the development of agencies that tend to facilitate readjustment processes. Prominent among these are greatly improved facilities for communication. Travel has become increasingly easy and relatively inexpensive. People of different localities meet each other more frequently and mix more freely than ever before, and news travels with a speed and facility that a half-century ago would have been thought impossible. Knowledge of changed and changing conditions thus reaches speedily the people who need it. Means of forecasting change have also greatly multiplied, and the reliability of these forecasts is constantly increasing, though they are still far from adequate.

B. THE WORLD WAR

War is the greatest of all the disturbers of economic equilibrium both within national boundaries and between nations, and the World War outranks all others in this particular. Its preeminence as a disturbing force is chiefly due to the number and economic importance of the nations involved, to the scope and complexity of the economic relations between them, to the relatively advanced stage of their economic development, to the number of soldiers and sailors engaged and the magnitude and expensiveness of their equipment, and to its destructiveness of men and materials.

From the time that it became involved in the war to the date of the establishment of peace, each nation was obliged to make the prosecution of the war the chief concern of the government and of a large percentage of the people. This meant a speedy transformation of large

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numbers of manufacturing plants and the construction of new ones for the production of war supplies and equipment; the use of old, and in many cases the creation of new, transportation agencies for the moving of these goods from place to place and across seas; the utilization of farms and farmers, mines and miners in the production of food and raw materials for war instead of peace needs; the construction of barracks and hospitals for the housing and care of men in training, the sick, and the wounded and of warehouses for war supplies; the withdrawal of millions of men and women from peace-time occupations, not only for direct service in the field of war operations but also for the operation of these war-time agencies at home; the utilization of financial institutions for the sale of government bonds and short-time securities, for the supplying of people with the means of purchasing them, and for the receipt, disbursement, and transfer of government funds; and the employment of government officials in the devising, levy, and collection of a large number of new taxes and of a greatly increased volume of old ones, etc., etc.

In this process of transformation of peace-time to war-time economies government functions and activities were enormously increased. Economic operations previously performed by private agencies, in the fields especially of manufacturing and transportation, were taken over by governments, those left in private hands were to a larger extent than ever before directed and supervised by governmental authority, and a number of new activities were created and performed by governmental agencies. Even the consumption of the population, not directly or indirectly engaged in war activities, was interfered with by rationing and other measures.

The duration of the war, four years, was long enough to bring this transformation process to a state approximating completion. Then followed a period characterized by the occupation of conquered territory, the reconstruction of the political map of Europe, the repatriation of the war personnel and its absorption into the home economies, the restoration of devastated territory, the gradual return to private agencies of the operation and control of the economic machinery which governments had taken over during the war period, and the partial restoration of stable monetary conditions which had been upset by the widespread suspension of specie payments and the circulation of large volumes of inconvertible government securities and banknotes.

The restoration of the economic world to its ante-war status has not

yet been and probably never will be, completed. The new tariff barriers erected by the newly created states still remain. Every nation is carrying an enormously increased burden of taxation and a crushing load of indebtedness. The United States has passed from the status of a debtor to that of a creditor nation. Russia has assumed an entirely new rôle in the family of nations and is engaged in the conduct of an economic experiment of the first magnitude. The status of Germany has been radically changed. The payment of her war indemnity and the settlement of the debt relations between the different nations are still perplexing the world's statesmen. Within each nation the establishment of the price, plant, and other relations between the different branches and subdivisions of the economic mechanism that are essential to permanent and normal prosperity has not yet been accomplished. International trade relations are still in an unstable and more or less chaotic state.

The growth of democracy on the one hand and of dictatorship on the other has also had grave economic consequences, among them the use of taxation and public credit on a large scale for social purposes, such as radical changes in the distribution of wealth, unemployment insurance and doles, old-age and other pensions. etc., etc.

C. CHANGES IN THE FIELD OF THOUGHT

During the last half-century changes in the field of thought have been quite as striking as those in the field of action. All the sciences have been involved, and in many respects our outlook upon, and our interpretation of, the physical and social world have changed. Criticism of old theories and points of view and constructive thinking have gone hand in hand, but the former has perhaps been more characteristic of the period than the latter.

Especially noteworthy from the point of view of the social sciences have been the development and spread of the doctrine of evolution and the so-called "new psychology." The publication of Darwin's *Origin of Species* was an event of the first magnitude in the history of the former and started a trend of thought which has continued to the present time and influenced all the social sciences. The new psychology, with its conflicting theories and viewpoints, has raised doubts regarding the validity of the older theories of human behavior without achieving any authoritative consensus of opinion regarding what is the correct explanation. Anthropology, archæology, and sociology have also thrown light upon the problems with which the social

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sciences are concerned and added greatly to the data needed for their correct solution.

D. THE DEVELOPMENT OF ECONOMICS

To point out the most significant trends in economics during the last half-century is difficult, perhaps impossible. A longer perspective than the present time makes possible may be necessary. Doubtless equally competent observers and students would differ regarding this matter. All would agree, however, that this science has been influenced and to a degree modified by the changes in economic conditions and in the thought movements described in the preceding paragraphs.

The purpose of this book can best be served by discussing first some significant attempts to reconstruct the science in the light of the criticisms described in Book III and of the changes outlined in the present chapter; second, some important additions to and modifications of certain doctrines that cannot properly be described as attempts to reconstruct the science; and third, some significant reactions against what may be called orthodox economics. Under the first head we shall trace the development of the so-called Austrian School, including the criticisms that have been passed upon it, and describe the most significant phases of the work of John B. Clark and Alfred Marshall. Under the second we shall describe some recent additions to theories of value and distribution, and under the third we shall give an account of the New Historical School and of the so-called institutional and statistical economists.

CHAPTER XX

CARL MENDER AND THE BEGINNINGS OF THE AUSTRIAN SCHOOL ¹

"In the early seventies began a noteworthy series of attempts to reconstruct some of the leading doctrines of political economy on a basis in many respects different from that on which the classical economists built. These were accompanied by an equally noteworthy reaction against the historical school."

A. MENDER'S CHIEF PUBLICATIONS

"A pioneer and leader in both these directions was Karl Menger, of Vienna. In 1871 he published *Grundsätze der Volkswirtschaftslehre*, in which some of the fundamental concepts and doctrines of the science were treated in a new and original manner, and in 1883 he published *Untersuchungen über die Methode der Sozialwissenschaften und der politischen Oekonomie insbesondere*, in which the nature of the science and the methods appropriate to its various parts were discussed with a considerable degree of elaboration and detail. The criticism passed upon the German historical school in this book brought a reply from Professor Schmoller of the University of Berlin in a review published in the *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im deutschen Reich*, under the title 'Zur Methodologie der Staats- und Sozialwissenschaften.' To this Menger replied in a series of letters published in Vienna in 1884 under the title *Die Irrthümer des Historismus in der deutschen Nationalökonomie*. Again in 1889 the same ideas were expressed in an article entitled 'Grundzüge einer Klassifikation der Wirtschaftswissenschaften,' published in the *Jahrbuch für Nationalökonomie und Statistik*."

B. THE ECONOMIC SCIENCES

"According to Menger, instead of one, several sciences are concerned with the study of economic phenomena and these he classified as

¹ The quotations in sections A, B, and C are from the author's contribution (Ch. VII, pp. 233-236) to Ingram's *History of Political Economy*, New and Enlarged Ed. (1915). By permission of The Macmillan Company, publishers.

historical, theoretical, and practical. Under the first he placed economic history and statistics; under the second, economic theory; and under the third, economic politics, public finance, and private economics.

"The field of the historical economic sciences is the study of individual phenomena in both their static and dynamic aspects; that of the theoretical, the study of the general aspects of economic phenomena, of their types and typical relations; and that of the practical economic sciences, the study of the regulations suitable to the attainment of specific ends or aims.

"The historical method is appropriate to the first group only and more particularly to one member of that group, economic history. In the study of the second group of sciences the abstract method is absolutely necessary, since here we are dealing not with *individual* but with general phenomena, which in the very nature of the case can only be discovered by the process of abstraction. Induction, or what Menger prefers to call the empirical form of abstraction, may be here employed, but its results are less reliable than those produced by what he called the *exact* method, that is the analysis of phenomena into their simplest elements and the separate study of each element both in isolation and in combination with other elements.

"The several groups of economic sciences are interrelated, and all are related to practice. The historical sciences supply aids and helps to the other two, and are, therefore, properly termed *Hilfswissenschaften*. However, they do not supply all the materials which these other groups must use. General observation and the common experiences of life must supplement them. The practical economic sciences use materials supplied by both the others, and the theoretical sciences also furnish guides for the economic historian and the statistician. The private and public practitioner will derive aid from all, but most, perhaps, from those belonging to the practical group, though these will not solve his problems for him. It is not their purpose to supply precepts for action, but to show how certain ends can be attained under different supposed or possible circumstances. The means for the attainment of a given end will vary with the different circumstances supposed, and these may never correspond exactly with actuality."

C. MENER AND SCHMOLLER

"The controversy with Schmoller revealed certain fundamentals which were common to the two men and which have been widely, if not universally, accepted by economists. These are: that historical and

statistical investigation as well as abstract methods of study, in the forms both of induction and of the isolated study of the simplest elements of economic life, not only have their place in the science of political economy but are essential to its development. In contrast with these points of agreement the differences between the two men appear relatively unimportant.

"Schmoller emphasized the importance of historical and statistical studies as means for the supply of materials for theorists to work upon, and thought that existing materials, or at any rate the materials that existed in the time of the older classical economists, have yielded all the results of which they are capable. Menger admitted the value of history and statistics, but denied that they are the only sources of materials and insisted that the data available to the classical economists were only imperfectly or partially worked and are capable of yielding valuable results to those who subject them to the right kind of analysis and study. Schmoller probably attached less importance to theory per se than did Menger, and does not seem to have agreed with him regarding the character of what the latter called the practical economic sciences and their relation to practice, but these are mainly differences of emphasis due to radical temperamental differences between the two men. The value of economic theories which cannot be directly applied in the solution of practical problems is difficult to estimate, and one's attitude toward them is certain to depend in no small degree upon temperament. There is unquestionably danger of their underestimation on account partly of the youth of the science and partly of differences between the character of the data from which they are derived and that of analogous theories in the physical sciences, the importance of which time has demonstrated.

"Some of the apparent differences between the two men vanish or are reduced to small compass when the substance of their thoughts, rather than the forms in which they are expressed, is analyzed. This is notably the case in their use of the term *the historical method*. As Schmoller used it, this method obviously involves the use of abstraction, analysis, and induction, and its results include much that Menger would classify as economic theory, while Menger assigned to the term a much narrower meaning, one which involved little more than mere description and the analysis which it implies.

"As Schmoller rightly said in the final summary of his estimate of Menger's contribution to methodology, the value of his methods must be judged by their results. The chief of these are embodied in his

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Grundsätze, which belongs in the group of the theoretical economic sciences as he defined it. In this book Menger used what he called the exact method, namely, that of isolating the simplest elements of economic life and subjecting them to exhaustive study."

D. ANALYSIS OF THE "GRUNDSÄTZE"

The elements with which he started are human needs, goods, and the law of cause and effect. Without needs, he declared, there can be no economy and no economic science. The satisfaction of needs is the goal of all economy, and the importance of these satisfactions to the maintenance of life and the development of well-being is the measure (*Mass*) of all economy.²

1. Needs.

Human beings and the world in which they live are so constructed that constant adjustments between the two and between different parts of each are required for the maintenance and enjoyment of life. Some of these adjustments are automatic and unconscious while others require conscious effort. Whenever proper adjustment between the different parts of a human being or between him and the external world is lacking or imperfect, internal disturbances occur which, according to the degree of their intensity, result in unconscious excitation or in sensations ranking in intensity from mere inconvenience or unpleasantness to pain, and these in turn in an impulse to remove the disturbance and to restore harmony. When these actions and reactions are conscious, they give rise to feelings, desires, and needs, the first two terms referring to the negative and positive aspects of sensations and the third to the requirements for the maintenance and harmonious development of life.³ Needs imply not only consciousness but also thought and reasoning. They are, therefore, more than mere desires, which may result from feelings alone.

Some needs result from the essential features of human nature, while others may be due to custom or to the peculiarities of the personalities of individuals and are therefore more or less artificial. In no case, how-

² "Der Ausgangspunkt aller wirtschaftstheoretischen Untersuchungen ist die bedürftige Menschennatur. Ohne Bedürfnisse gäbe es keine Wirtschaft, keine Volkswirtschaft, keine Wissenschaft von derselben. Die Bedürfnisse sind der letzte Grund, die Bedeutung, welche ihre Befriedigung für uns hat, das letzte Mass, die Sicherstellung ihrer Befriedigung das letzte Ziel aller menschlichen Wirtschaft."—*Grundsätze*, 2d. ed. (1923).

³ "Der Erfordernisse der Erhaltung und harmonischen Entwicklung der menschlichen Natur in ihrer Totalität," *ibid.*, p. 3.

ever, are they arbitrary in the sense of being due to, or changeable by, a mere act of the will. At any given time they are the results of our natural and acquired characteristics and of the conditions in which we are placed.⁴

Besides the needs of individuals must be recognized those of associations (*Verbände*) such as states, cities, etc., and these must be distinguished from mere collective needs, that is, needs that are common to a number of individuals and are satisfied by common institutions or instrumentalities such as railroads, bus lines, electric light and gas works, etc. The needs of associations are not felt by individuals as such, and their satisfaction is not a part of the economy of individuals, but they are requirements of the associations' themselves and their satisfaction is the goal of special economics which are independent of the individual economies of the persons who directly or indirectly belong to them.

2. *Goods.*

Change in the condition of a person from a state of need or want to that of satisfaction, like all other changes, is subject to the law of cause and effect. The cause, in this case, is called *a good* and the effect, *a satisfaction*. In order that a good may come into existence, therefore, there must be knowledge of a need, something possessing the qualities required for the satisfaction of this need, knowledge of the existence of this thing and of its qualities, and the power to apply it to the satisfaction of the want, or the disposal (*Verfügung*) of it. The qualities of a thing that fit it for the satisfaction of a want are called *utilities*.

Menger classified goods as *real* or *unreal*, according as they do or do not result in the satisfactions they are supposed to cause; *material* or *immaterial*; *transitory* or *durable*, according as by use they lose or do not lose their qualities as goods; goods of *first rank*, *second rank*, *third rank*, etc., or goods of *lower* and of *higher* ranks; and *complementary* goods.

The basis of the two last classifications is the direct or indirect relation goods occupy to the satisfaction of needs. Those that possess in themselves the qualities needed for the satisfaction of wants Menger called goods of the first rank; those that, though they do not themselves possess these qualities, are capable of being transformed into or of producing those that do, goods of the second rank; and those capable of producing goods of the second rank, goods of the third

⁴ *Ibid.*, p. 4.

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rank, etc., etc. In referring in a general way to these various ranks he used the terms goods of *lower* and of *higher ranks*, meaning by the first those of the first and other ranks nearest to the satisfactions they cause or help to cause and by the second those further removed.

Complementary goods are those that operate *in combination with* other goods and not singly.

In his discussions of goods of the higher ranks and of complementary goods Menger emphasized the fact that, in the case of the former, the quality of being a good of any one of the higher ranks is conditioned upon the possession of that quality by the goods into the production of which it enters; and, in the latter case, by the existence of the other goods needed in the combination. If, for example, all the goods of the first rank into the production of which a given good of higher rank enters should cease to be goods, the same fate would follow the goods of lower rank, and, if all the other goods in a combination necessary to the production of a good or of goods in the rank below should disappear or for any other reason cease to be goods, so would the one remaining.

An important fact connected with goods of the higher ranks is that time is required to transform them into those of the rank below, and the amount of time consumed in the entire process becomes larger and larger as the number of ranks increases. In other words, the length of the period intervening between the satisfaction of a want and the starting of the process of production which creates the goods that directly causes it increases with the increase in the number of the intervening ranks of goods.

There is also an element of uncertainty and insecurity associated with goods of higher rank. On account of the imperfection of our knowledge of some of the forces that operate through them and of the methods of their operation and the lack of complete control over these forces, we cannot know in advance with certainty the quantity and quality of goods of the first rank a given quantity of them will produce. The connection that *men* have with these processes of production also contributes to this uncertainty.⁵

⁵ "Je mehr factoren bei der Güterentstehung mitwirken, die wir nicht kennen, oder über die wir, wenn sie von uns erkannt sind, nicht zu verfügen vermögen, d.h. eine je grössere Anzahl dieser Factoren keine Güterqualität besitzen so grösser pflegt auch die Unsicherheit über die Qualität und Quantität des Produktes zu sein, über welcher wir durch den Besitz von guter höherer Ordnung (also mittelbar) verfügen."—*Grundsätze*, p. 30.

3. *The Quantitative Aspects of Needs and Goods.*

Under this head Menger discussed the *quantities* of goods respectively *needed* and *available* for the satisfaction of wants. Regarding the quantity needed, he said, the determining factor is the needs of the person in question and, as has been already observed, these are fixed by his characteristics and environment. An element of uncertainty in this case arises from the fact that not infrequently the same want may be satisfied by different goods and different combinations of goods. Regarding the quantity available, the determining factors are the physical environment and the personal services capable of being rendered by the existing population. The element of uncertainty here is the fact that the same good may be used for the satisfaction of different wants.

If instead of the immediate present we consider a period of time, other elements of uncertainty appear in the case of the quantity needed (*der Bedarf*). These are (a) the fact that we cannot determine in advance all the wants that should be satisfied and the degree of their intensity, there being uncertainty regarding the appearance of certain ones (those for medicine, fire-extinguishers, etc., for example) and regarding the quantity available; and (b) the fact that those at our disposal at present may deteriorate or be destroyed or may be taken from us during the period of time in question.

The quantity of goods of the higher ranks needed depends upon the deficiency that exists in the available supply of those of the first rank and upon the technique of production, but here appears a complication due to the employment of complementary goods. In the case of a certain good of higher rank essential to the production of another of lower rank, the amount of it effectively needed is also conditioned by the existence of the complementary goods that must be used in connection with it. The same thing may be said regarding the quantity of goods of higher ranks available. The fact that a certain good is at our disposal does not make it a part of the effective supply unless there are also available the necessary complementary goods. A further complication is due to the fact that the same good may be used in the production of different goods of the rank below it.

In the determination of the quantitative relations here under consideration the fact that goods of the first rank follow *in time* those of the second, and those of the second follow in time those of the third,

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etc., etc., is of great economic importance. If we designate successive periods of time by the Roman numerals I, II, III, etc., we may illustrate this importance by noting that the possession of goods of the second rank in period I guarantees a supply of goods of the first rank in period II and not in period I, and we may not, therefore, count such goods as a part of the supply available for our satisfactions in period I. On the other hand, it should be noted that goods of the higher ranks that were available to us in the past contribute to the available supply in the present and must therefore be considered in the determination of that supply.

Considered from a social instead of an individual point of view, this question of the quantities of goods needed and available presents some special aspects. The first is that, as society is at present organized, the quantity of goods needed by an entire people, including the needs of all individuals and associations, and the quantity available for the supply of these needs are the concern of no one in particular. No one is interested in considering these matters in the same way and to the same degree that individuals and associations are interested in considering the quantities needed and available in their own cases or in that of their families or immediate dependents. Instead of those aggregates, business men consider the quantities of goods that come, or are likely to come, to market and the purchasing power of the people. In this case the slightest wish of a person with purchasing power has more weight than the most pressing need of a person without purchasing power.⁶

The quantity of goods needed by a socially organized people is not identical with the amount needed by the same individuals unorganized or living isolated lives. It is distinctly smaller for at least two reasons: the first is that certain goods, such as streets, parks, means of protection, etc., can satisfy the needs of a number of persons as easily and as completely as those of one; the second is that in making provision for the uncertain needs of a future period the law of chance operates in the case of an organized people in such a manner as to make a smaller supply suffice.

Just as there can be said to be no reality corresponding to the term *national need* (considered as a quantity of goods required, the determination of which is the duty and interest of somebody), so there is as little reality corresponding to the term *national property*. There are, to be sure, a state property and properties of other political associa-

⁶ *Grundsätze*, p. 49.

tions, but these must be distinguished from national property in the sense in which the term is here used, namely a quantity of goods at the disposal of the nation considered as a whole, the care for and supply of which is the special interest and duty of a real economic subject.⁷ It is true that under a régime of exchange individuals are interested in the needs of others and in the quantities of goods available for their supply, since these matters are related to the supply of their own needs, and on this account they make efforts and establish agencies for the collection of statistics concerning the needs of the entire nation and indeed of the entire world and concerning the goods available for the supply of these needs; but this is not the same thing as interest in and care for the needs of the whole people and for the amount of goods available for their supply as features of the activities of a special economy.

4. *Economy and Economic Goods.*

A large part of the activities of men is devoted to the securing of the harmonious satisfaction of their needs, *harmonious* in this case meaning the fullest possible satisfaction of all and the satisfaction of the more, before the less, important ones. These activities must be preceded or accompanied by knowledge of needs and of the means available for their satisfaction, including the foresight necessary to forecast future needs, effort to secure their satisfaction, knowledge of the way in which the available means can be made to secure the desired ends, and the disposal of these means. The term *economy* (*Wirtschaft*) is used by Menger and other German writers to designate all these activities of an individual or an association of individuals together with all the subjective and objective accompaniments and implications of these activities. Its *starting point* is the goods placed at the disposition of an economic subject by nature and by the social environment in which he is placed. Its *goal* is the satisfaction of his needs by means of the transformation and manipulation of these goods.⁸

This use of the term *economy* should not be confused with the one common in English-speaking countries and also used in others which refers to the manner in which economic activities are directed or ad-

⁷ *Ibid.*, pp. 51-54.

⁸ "Der Ausgangspunkt der Wirtschaft sind die uns durch die natürliche (unter sozialen Verhältnissen durch die rechtliche Sachlage, in die wir uns gestellt finden), unmittelbar gegebenen Güter."—*Ibid.*, p. 60.

"Der Zielpunkt unserer Wirtschaft ist die Deckung unseres Bedarfs an Genussbereiten (an unmittelbar zur Befriedigung unserer Bedürfnisse geeigneten) Gütern."—*Ibid.*, p. 61.

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ministered instead of to these activities themselves. It is obvious that one's economic activities or his economy may be *economically* or very *uneconomically* managed. It should also be noted that the term as here used does not include the final consumption of goods, that is, the act of *using them up* in the satisfaction of wants. The latter follows economic activities and is not a part of them.⁹ Neither is *distribution*, in the sense in which that term is used by economists, a part of economy. This term describes a state or condition resulting from economic activities, and not any part of these activities themselves. In this respect it is unlike the terms *production* and *exchange*, which describe special activities and processes included in economy, those indeed by means of which distribution is accomplished.

It is also important that the true relation to economy of the technical personal services put forth in production should be comprehended. These, like raw materials, tools, machines, land, etc., are part of the *objective* means employed in bringing into existence the goods required for the satisfaction of needs, but they should be distinguished from those other personal activities which Menger called the *subjective elements* of economy. These latter include all those mental and other personal activities which are involved in the utilization and manipulation of material and immaterial means for bringing into existence the largest possible quantity and the best quality of goods fitted to satisfy needs. In their nature and purpose they differ from, and are in addition to, the personal services technically employed in production.

The failure to note this distinction has resulted in a gross exaggeration and misconception of the rôle of so-called labor in individual and national economy and is responsible for such errors as the doctrine that labor is the exclusive cause of wealth, the source and measure of value and, together with saving, the determining factor in the formation of capital.¹⁰

What Menger called the subjective elements of economy (as distinguished from the personal services of various kinds put forth in the production and the exchange of goods, which he classified among the objective elements) embrace, according to his analysis, two groups of activities. The first includes (a) acquisition of the knowledge of the kind, quantity, time, and place of appearance of our needs; (b) ac-

⁹ "Wir wirtschaften, indem wir die Mittel zur Befriedigung unserer Bedürfnisse und solcherart die Möglichkeit der Konsumtion in kommenden Zeiträumen sicherstellen, nicht indem wir konsumieren."—*Grundsätze*, p. 62.

¹⁰ *Ibid.*, pp. 73 and 74.

quisition of the knowledge of the kind, quantity, time, and place of appearance of the means at our disposition for the satisfaction of these needs; (c) acquisition of the knowledge of how to employ these means for bringing into existence the goods required; and (d) the actual placing of these various means into the necessary relation with each other and with ourselves.

The second group results from the fact that the means at one's disposal are inadequate for the complete satisfaction of all needs and that one therefore strives to so administer them as to secure the greatest possible amount of satisfaction. This effort involves (a) the determination of the relative importance of needs, (b) acquisition of the knowledge of how to get the greatest possible quantity of enjoyable goods out of the means at our disposal, (c) acquisition of the knowledge of how to protect goods against loss, deterioration, and destruction; and (d) acquisition of the knowledge of how to get the largest amount of satisfaction with the least expenditure of goods.¹¹

These two groups of activities, though they are the result of different causes and may be disassociated, usually operate in combination. From this fact there result (a) in the processes of production and elsewhere in the realm of economy the effort to secure the greatest possible technical results with the smallest possible expenditures of means; (b) in the application of goods to the satisfaction of wants, the differentiation of the more from the less important needs, and the selection of the former for satisfaction; and (c) wherever and whenever the attainment of the above-mentioned ends require it, the transformation of one kind of goods into another and especially of production into consumption goods and vice versa.¹²

A comparison between the quantities of goods required and available respectively for the satisfaction of the wants of an economic subject reveals the fact that the first aggregate may be greater than, less than, or equal to the second and has given rise to the well-known distinction between *economic* and *non-economic goods*. An analysis of the relations between these two categories and of the relations of both to human economy led Menger to the following conclusions:

(a) that the quality of being an economic good does not inhere in the good itself but results from the relation between the quantity of it available and that required for the satisfaction of needs;

¹¹ *Ibid.*, pp. 74 and 77.

¹² *Ibid.*, p. 79.

(b) that a specific good may belong to the category of economic goods in one place or time and to the category of non-economic goods at another place or time;

(c) that a good may pass from one of these categories to the other as the result of a change in the wants it is fitted to satisfy or as the result of a change in the quantity of it available;

(d) that goods at present in the non-economic class may be believed or known to be certain to pass into the economic class in the future and on this account may be the objects of present-day economic activities;

(e) that certain superior parts of the supply of a non-economic good may belong to the economic class, while the entire supply may belong to the non-economic class;

(f) that the economic character of goods of the higher orders is conditioned on the economic character of those of the lower orders into the production of which they enter; and

(g) that the economic character of goods of the lower orders is not derived from that of goods of the higher orders but vice versa.

5. *Property.*

The concepts of property and economic goods have a common origin in the circumstance that the quantity of available goods is inadequate for the complete satisfaction of all wants, but they differ in the fact that the former implies the existence of society while the latter applies equally well to an isolated economy. When individuals are brought together into a social organization, the division and distribution of economic goods becomes necessary; one person becomes interested in appropriating goods to his own use and in preventing others from using them, and property therefore appears. It should be noted, however, that, while this institution owes its existence to society, it is not dependent upon any special form of society or upon any special form of social organization. In any society, however organized, the inadequacy of the supply of goods for the complete satisfaction of all wants necessitates the division, distribution, and appropriation of goods. There may be common property or individual property, but property there must be if the quantity of goods at the disposal of a number of associated individuals is inadequate to the complete satisfaction of all their needs.

It should also be noted that there is no reality corresponding to the frequently used concept of national (*Volks*) property, i.e., property

distinct from that of the individuals and associations (including the state) of which the nation is composed. This concept is therefore scientifically misleading, and the expression *national property* should be dropped from the terminology of the science.

As forms or subdivisions of property Menger distinguished *capital* and *consumption goods*, the former subdivided into stable and variable, use (*Gebrauchs*) and exchange (*Waren*), and fixed and circulating. His conception of capital is based upon the distinction drawn (in his discussion of the various kinds of goods) between those that do and those that do not lose their goods qualities by use, the latter being characterized by the fact that their uses can be separated from the parent good and can acquire the status of being themselves goods. In one group of these capital goods, that he calls *stable* (*Stabiles*), the parent good (*Hauptgut*) retains its original form—for example, land, buildings, machines, etc.; while in the other, which he calls *variable* (*variabiles*), its form changes—for example, raw materials. *Use capital* is that form which serves its owner by being employed in production; *exchange capital*, that form which serves its owner by being exchanged for other goods. The categories of *fixed* and *circulating capital*, are not identical with the above, but so to speak cut across them, that of fixed capital including a part of use capital only, namely the *stable* portion, while that of circulating capital includes *variable* use capital and exchange capital. Fixed capital may be subdivided into fixed use capital and fixed productive capital, according as it is used directly in the satisfaction of the personal needs of its owner or for purposes of production.

The term *consumption goods* is not used by Menger as the correlative of capital, but as applicable to all goods devoted by their owner to consumption, including production goods that he will exchange for other goods that he intends to consume.¹³

Menger drew another important distinction between what he called the *gross* and the *net* uses of capital, the latter applying to those uses which remain after the parent good has been restored by repairs, reconstructions, etc., to the condition in which it was before use. Some capital goods—for example, precious stones, building sites, playgrounds, and the like—remain intact in spite of use, without repairs or restoration, and consequently all the uses of such goods are net.¹⁴

The rôle of capital in economic progress is described by Menger as

¹³ *Grundsätze*, p. 91.

¹⁴ *Ibid.*, pp. 92–94.

that of a *necessary condition*. Such progress results from the discovery and employment of goods of higher and higher ranks and these in turn from the discovery of the powers of nature, of the causal relations between them, and of the manner in which they can be manipulated so as to cause the satisfaction of needs. The transformation of goods of higher into those of lower ranks requires time and more and more of it as the number of such transformations increases. Capital, in the sense of supplies of goods transferred from immediate to future uses, is a necessary condition to the lengthening of this period of time intervening between the beginning and the end of the processes of production and is, therefore, a necessary condition of progress.¹⁵

6. *Value.*

Since economic goods are insufficient in quantity completely to satisfy needs, a certain amount or degree of satisfaction is dependent upon each unit of each good at one's disposal. Thus, adding a unit to the supply of any good increases, and subtracting a unit from it decreases, satisfactions. Consciousness of this fact results in our attaching importance or value to these units. Value thus has the same source as economic goods and belongs to them exclusively; but it is neither an inherent quality of them nor one conferred upon them by action of the will. It is merely a consequence of the recognition of their relationship to human well-being, a relationship which results from the insufficiency of the quantity available for the complete satisfaction of needs.

Since the owner of goods may use them for the satisfaction of needs *directly* by consuming them or *indirectly* by exchanging them for other goods, and since their importance to him may be greater when used in the one way than when used in the other, Menger distinguished two kinds of value which he named respectively *use* and *exchange* value. According to this conception—which is not the same as that of Adam Smith and others who identify use value with usefulness or utility—a good may have use value without exchange value and vice versa, and its *economic* value—that is, the one of these two that is greatest—may pass from the one category to the other on account of (a) a change in the needs of the economic subject, (b) a change in the quality or the

¹⁵ This use of the term *capital* differs from the one previously described in that it does not include in the capital category desirable goods devoted to present-time consumption. *Grundsätze*, p. 100, note.

quantity of the good, or (c) a change in the importance of the good to other people.

On account of the relation between goods and well-being, economic action requires not only that we impute value to them but that we compare the values of different goods and the value of the same good at different times and under different conditions. It is obvious that these quantitative differences are due to two causes, namely, the differences in the importance to well-being of the satisfaction of different needs and the differences in the amount of satisfaction caused by units of the same good according as the number of units at one's disposal is greater or less. From the point of view of their importance, needs may be classified into ranks ranging from the highest, upon the satisfaction of which life itself depends, to the lowest, upon the satisfaction of which the smallest conceivable amount of well-being depends. It is obvious that different degrees of importance and consequently different values are imputed to goods according to their fitness to satisfy needs of these different ranks. It is equally obvious, however, that the amount of value imputed to a unit of a supply of a good is a function of the number of units available, and, consequently, that no more value may be imputed to a unit of a relatively *large* supply of a good fitted to satisfy a need high up, than to a unit of a relatively *small* supply of a good fitted to satisfy a need lower down, in one's scale.

Since to each unit of a homogeneous supply of a good is imputed the same value, regardless of the fact that greater satisfaction may be derived or derivable from the use of some than others, the question arises, Is the value imputed determined by the greatest satisfaction any unit of the supply yields or by the least or by some satisfaction between the two extremes, say the middle one? The answer is, *The least important one*, since it is that which is conditioned upon the addition of a single unit to or the subtraction of a single unit from, the supply.

In the valuation of the different units of a supply that is not homogeneous, that is, the different units of which differ in quality, the principle that each has the same value imputed to it does not hold; on the contrary, greater value is imputed to those of superior quality in proportion to the degree of their superiority. This principle follows from the fact that the amount of well-being conditioned by a unit of a good of superior quality is greater than that conditioned by a unit of the same quantity of a good of the same kind but of inferior quality, and greater by the degree of its superiority. It should also be noted

that in the case of a good, the available quantity of which is in excess of the need for it and which, therefore, belongs in the non-economic class, units of superior quality may not be in excess of the need for them and may, therefore, have value.

Since value is subjective, being *imputed* to goods in accordance with the judgment a person forms of their importance to his well-being, it may be *false* or *imaginary*, in the sense that the satisfaction actually yielded by the goods does not correspond to those expected or anticipated. Hence imperfect knowledge, errors of judgment, sentiment, prejudice, etc., are factors in the determination of value.

In tracing the connection between goods and the satisfaction of needs and in determining the amount of the value of goods, a complication arises in the case of those of higher ranks and in that of complementary goods. In the former case we must reckon with the fact that the goods in question do not satisfy wants *directly* but only *indirectly*, through those of first rank into which they are transformed; and in the latter case, with the fact that the goods in question are not *singly* responsible (either directly or indirectly) for the satisfaction of needs, but only *jointly*, in combination with other goods.

The application of the value principle to these more complicated cases requires the determination of the manner in which we trace the relation between them and changes in our well-being. In the case of goods of the higher ranks, the line of dependence clearly runs from needs to goods of the first rank, and from them to goods of the second rank and so on. We first recognize the importance to well-being of the satisfaction of needs; then transfer or impute that importance to the goods that cause their satisfaction, that is to goods of the first rank, and thence to those of the second rank that condition the existence of those of the first rank, and so on down the line to goods of the third, fourth, fifth, etc., ranks. The value of goods of the second rank is thus *derived from* that of goods of the first rank, for the production of which they are essential, and not vice versa, and that of goods of each rank higher up is derived *from* that of those in the rank next below for the production of which they are essential and not vice versa. We do not impute value to bread because it is produced from valuable wheat, but we impute value to wheat because it produces bread which we value, and we impute value to wheat-growing land because we value the wheat it grows and to the extent that we value the wheat, and not vice versa.

Since goods of the first rank follow those of the second, and those

of the second rank follow those of the third and so on, *only after the lapse of a period of time*, in the valuation of goods of the higher ranks arises the further problem of estimating the value to us *now* of goods that will be placed at our disposal at a future period of time. Two facts should be distinguished in this connection: one is that we are dealing with *estimated* as distinguished from *realized* values and the other is that we are seeking for the *present value of future goods*. The value which we estimate that goods will have in the future may or may not be realized. Errors of various kinds, due to imperfect knowledge, lack of imagination, unforeseen occurrences, etc., may vitiate and lead astray our judgment.

That phase of the problem suggested by the second fact Menger solved by making use of the conception which he named the *economic uses* of capital. By these he meant the services goods of the higher ranks continue, according to his view, to render after they have been transformed into other goods, by making possible a longer and therefore more remunerative productive process. He therefore argued that a quantity of goods coming into the possession of a person in the future is worth as much less than that same quantity in his possession at the present time as the *economic uses* of these goods during the period are worth.

Regarding the valuation of complementary goods, Menger noted the fact that they are not always like the elements of a chemical compound, of which it may be said that, if one is lacking, the compound cannot be produced. Instead it frequently happens that the absence of one complementary good may be partially or wholly made good by the substitution of another. Or its absence may result, *not* in the failure of the entire productive enterprise, but in a diminution in the quantity or a deterioration of the quality of the product. It also often happens that a complementary good may be taken from one combination and used in another. Indeed, many of the most widely used complementary goods, iron, land, labor, etc., are used in a large number of combinations.

These facts suggest that experience and experimentation furnish the key to the solution of the problem of the valuation of these goods and led Menger to the formulation of the following principle: "The value of a unit of a good of higher order is the difference between the significance of those satisfactions of needs that result in case we have disposal of it and those that result in the opposite case."¹⁶ In other words,

¹⁶ *Grundsätze*, p. 157.

experience enables us to note what happens, from the point of view of satisfaction of needs, when a unit of good of higher rank is or is not at our disposal and thus supplies the basis of a judgment regarding its value. The valuation of a unit of a complementary good, therefore, is determined by noting what happens when it is removed from the combination of which it is a part.

The principles of value are applicable without modification to land, labor, and capital and therefore determine what economists call the distribution of wealth. Each of these, however, has peculiarities which must be considered in the explanation of its valuation. In the case of land these peculiarities are limited quantity which cannot be increased at will, immobility, and wide difference between the quality of the different pieces. These peculiarities and similar ones belonging to labor and capital, however, do not in any way exempt them from the operation of the principle that their value results from and is measured by their relation to human well-being.

7. *Exchange.*

Like all other economic processes, exchange is a means to the end of the more complete and the better satisfaction of needs. Before it can economically take place, therefore, the following conditions must be complied with: (a) "there must be at the disposal of an economic subject goods which have for him a lesser value than another economic good at the disposal of another economic subject and the valuation of these goods by the second economic subject must be the reverse of that of the first; (b) both economic subjects must have knowledge of this condition; (c) the exchange of these goods must be in their power; and (d) the cost or sacrifice necessitated by the exchange must be less than the gain to be derived from it."¹⁷

In the case of goods capable of subdivision, so that parts of them may be exchanged, it is obvious that the amounts exchanged may be more or less; and consequently, on account of changes in value due to the changes in the relative quantities of the goods at the disposal of the exchangers, it is equally obvious that there is a limit beyond which the exchange of additional quantities may be unprofitable, indeed may be injurious.

The explanation of the terms on which exchanges are made is the purpose of the theory of prices, the latter term being usually defined as the amount of one good that is exchanged for a unit of another. From

¹⁷ *Grundsätze*, p. 173.

the explanation of the nature of exchange given in the preceding paragraph, it is obvious that all theories of price based upon the *assumed equivalence* of the goods exchanged—for example, the labor and all other forms of the cost-of-production theory—are wrong, since the only reason for, and the only possible cause of, an exchange is the lack of equivalence (to the exchangers) between the goods exchanged. On the assumption of equivalence the motive to exchange disappears.

Within the profitable limits the terms on which exchanges are made depend upon the number of exchangers and the number of the goods at their disposal and upon the presence or absence of competition. In *isolated* exchanges, that is, where there are but two persons involved, the limits of price are "the different quantities of the good under discussion considered by the two exchangers respectively equivalent (in a subjective sense) to a definite quantity of the other good," and within these limits the price will tend to be the average of these equivalents.¹⁸ For example, if A imputes the same value to 100 units of grain that he does to 40 units of wine and B imputes the same value to 80 units of grain that he does to 40 units of wine and A possesses grain and B wine, not only is exchange between the two possible, but the limits of price would be 80 and 100 units of grain for 40 units of wine or 2 and $2\frac{1}{2}$ units of grain for 1 unit of wine. According to Menger, the tendency in such a case would be toward the establishment of a rate half-way between these limits, that is a rate of 90 units of grain for 40 units of wine or $2\frac{1}{4}$ units of grain for 1 unit of wine.

In case there are a monopolist on one side and a number of competitors on the other, the upper and lower price limits will be closer together than in the case of the isolated exchangers, on account of the different valuations placed by the competitors upon the goods to be exchanged and the bidding against each other that will result. Suppose for example, farmer A has a horse upon which he places the same value that he does on 10 bushels of wheat, while farmers B₁, B₂, and B₃ value the horse at the same figure respectively as 20, 30, and 40 bushels of wheat. It is obvious that in this case competition for the horse between farmers B₁, B₂, and B₃ will result in a price between 30 and 40 instead of one between 10 and 40 bushels. In case there are competing sellers as well as buyers, the limits of price might be still nearer together.¹⁹

If there are a number of competitors on both sides, the case differs from that in which there is a monopolist on one side by the fact that in

¹⁸ *Ibid.*, p. 188.

¹⁹ *Ibid.*, pp. 190-194.

the latter case the question arises as to the relative profitability of limiting the amount put upon the market, since the monopolist has control of the entire supply. In the former case each competitor knows that any effect produced upon the price by his withholding a portion of his supply will be neutralized by the increased quantity thrown upon the market by the others. The monopolist may find it more profitable to sell a small supply at a high price per unit than a larger supply at a much lower price per unit and will fix the supply and consequently the price at the point that will yield him the largest returns.

8. *Merchandise* (Waren).

Goods may be consumed *after* passing through the process of exchange or *without* being subjected to that process. In the former case, before they pass into the hands of the consumer they are called *merchandise*; only thereafter do they belong strictly to the category of *consumers'* goods. A narrower conception limits the application of the term *merchandise* to goods designed to be exchanged, but Menger thinks the broader one preferable for scientific purposes.²⁰

The exchangeability or saleability (*Absatzfähigkeit*) of merchandise is its important characteristic. Some articles possess it in a higher degree than others, and the same article may possess it in a higher degree at some times than at others. The saleability of goods is determined and modified by many conditions and circumstances such, for example, as the nature of the need the article is fitted to satisfy, the number of people who have that need, its price, and the presence or absence of limitations on its sale. Among the latter are climatic conditions, transportation facilities and costs, import and export duties, bounties, premiums, etc. There are also quantitative limitations. There are some goods the quantity of which that may be sold *at some price* is practically unlimited, for example gold and silver, while in the case of others the quantity that may be sold *at any price* is very small, for example a book on the peculiarities of the syntax of the language of a little-known tribe of Indians.

Within the range of its possibilities, the actual saleability of a good depends upon the realization of what Menger called an *effective* price, and this in turn depends upon the perfection or imperfection of competition, upon the extent to which buyers and sellers are or are not guided by purely economic considerations, and upon the degree of knowledge they have of their own interests. The organization of com-

²⁰ *Grundsätze*, p. 220.

merce is also an important factor in the determination of the extent to which people who have the capacity actually take part in the marketing process.

Another aspect of saleability considered by Menger is the ease or difficulty with which a good passes from hand to hand, that is, *its capacity for circulation*. In this connection he called attention to the fact that some articles—food and certain kinds of clothing and bedding, for example—circulate more readily through the hands of certain persons than through those of others; while in other cases, that of gold, for example, the character of the persons through whose hands they pass is not a matter of any importance. Certain goods also circulate only or readily when they are in the hands of people who have special kinds of knowledge, preparation, connections, special official and legal rights, etc. Menger also noted the fact that goods that require to be specially fitted to the needs of consumers circulate less readily than those that are not so handicapped, and that goods whose prices are not widely known or are subject to wide fluctuations circulate less readily than those whose prices are widely known and are relatively stable.

9. Money.

Money is the result of a gradual process of evolution which started with the consciousness of the well-known difficulties of barter and with the resulting efforts to overcome them. Among the earliest of these was the exchange of goods of a relatively low for those of a relatively high degree of saleability. On account of this practice one or more goods of the highest degree of saleability gradually became a medium of exchange for the entire community and thus acquired the characteristic of what is called money. On this account, however, they did not drop out of the category of goods or lose any of the qualities that goods possess. They simply occupied a unique position in this category due to the fact that everybody purchased them for the purpose of reexchange even when he did not desire them for his own consumption.²¹

Service as a medium of exchange resulted in other uses, of which the most important are (a) as substitutes for other goods in one-sided transfers of various kinds such as dues, taxes, gifts, etc.; (b) as means of payment; (c) as means of hoarding, and in the accumulation of capital; (d) as means for the promotion of transfers of property between localities and from the present to the future and as a means of

²¹ *Ibid.*, pp. 259–264.

making loans; and (c) as a standard. This latter use is described at length by Menger, and erroneous ideas concerning it are pointed out.

In the first place the use of money as a standard does not mean a *price measure* in the sense of a definite, fixed quantity used as a unit for measuring other quantities; that is, it is not like a quart or gallon or bushel measure for cubical contents, or a foot-rule or yardstick for linear extension. The conception of money as a measure in this sense resulted from the error of considering the quantities exchanged as equivalents, which they in no sense are. The true function which the term *measure* or *standard of value* is designed to describe is indicated by the need of some means of describing and comparing the values of groups of goods or the results of the economic activities of different persons or groups of persons at the same or at different times or places for such purposes as inheritances, marriage dowries, taxation, fines, the determination of costs and incomes, the comparison of the wealth of individuals or communities at the same time or of the same individual or community at different times, etc., etc. For all these and similar purposes we use the money unit as the indicator of or means of expressing the magnitudes under consideration, and in this sense it serves as a standard or measure.²²

The use of money as a standard raises the question of the influences affecting its *external and internal* value. By the former is meant its purchasing power, that is, the quantity of other goods it will command in exchange; by the latter, its own power in determining the ratio at which it exchanges for other goods. The difference between these two phases of the value of money becomes clear when one remembers that two goods are involved in every exchange—in those in which money is used, money and one other good, and that the terms or ratio of the exchange may be affected, and are always actually determined, by influences acting on both sides, that is, on the money side and on the side of the good. An investigation into the external value of money contemplates merely the final result of the operation of all these influences, that is, the actual ratio realized at any given time and the changes in that ratio from time to time. An investigation into the internal value of money, on the other hand, aims to separate the influences operating on the money from those operating on the goods side and to determine the result of the former.

The desirability of stable external as well as internal value in money is very great, and neither is theoretically, though both are practically,

²² *Grundsätze*, pp. 295–297.

unattainable. This latter fact, however, does not lessen the desirability of the analysis, and so far as possible of the measure, of the influences affecting both. Researches into these problems may establish strong probabilities of great practical importance.

CHAPTER XXI

FRIEDRICH VON WIESER¹

"More than a decade passed after the publication of Menger's *Grundsätze* before public evidence of any considerable support of the theories therein expounded appeared. The dominance of the Historical School in Germany was probably partly responsible for this tardy recognition. At any rate it was not until after the publication of Menger's criticism of the Historical School in 1883 that books and monographs expounding, expanding, and developing these theories appeared. Among them the most important were Friedrich von Wieser's *Über den Ursprung und die Hauptgesetze des wirtschaftlichen Werthes* and *Der natürliche Werth* (1883), Eugen von Böhm-Bawerk's *Geschichte und Kritik der Kapitalzins-Theorien* (1884), "Grundzüge der Theorie des wirtschaftlichen Güterwerths," in *Jahrbuch für Nationalökonomie und Statistik* (1886), and *Positive Theorie des Kapitals* (1888); and Emil Sax's *Grundlegung der theoretischen Staatswirtschaft* (1887). In these works substantial additions were made to the body of doctrine contained in the *Grundsätze*."

A. VALUATION OF PRODUCTION GOODS

"Von Wieser's chief contributions concerned the valuation of cost and complementary goods and the application of these doctrines to the explanation of the distribution of wealth. Starting with the doctrine expounded by Menger that production goods derive their value from their products, he elaborated its corollary, namely, that of several products resulting from the same production good or goods, it is the marginal or least valuable one which transmits its value to the said goods, and he proceeds to point out the precise relation this doctrine bears to the doctrine of costs of the older economists. In this connection he developed the proposition that the value thus conferred upon production or cost goods is transmitted by them to their supramarginal

¹ Quotations in sections A-C are from the author's chapter in Ingram's *History of Political Economy*, New and Enlarged Ed., pp. 240-247. By permission of The Macmillan Company, publishers.

products. The value of these products, therefore, in a sense, may be said to be determined by their costs, as the older economists claimed. The weakness of the treatment of this subject by these economists consisted in their apparent failure to recognize the necessity for an adequate explanation of the value of the cost goods themselves and in their failure to supply such an explanation.

"Von Wieser's argument is identical with that employed by Menger in the demonstration of the proposition that the value of consumption goods, or goods of the first rank, is determined by their marginal utility. The essence of that argument is the dependence of certain kinds and amounts of satisfaction upon the possession of certain goods. Once this dependence is established, the reason for the valuation of those goods and the amount of value they possess are determined. In the case of cost or production goods this dependence can be established only through their marginal products, since it is only such products that depend for their existence upon the possession of specified amounts of the cost goods, economical action requiring that the loss resulting from the withdrawals of a portion of the supply of such goods be shifted to the least important point and that is always the least valuable of the products of such goods. The value of cost goods once being fixed, however, it becomes a determining factor in the supply of their supramarginal products, since such supplies will be increased until the marginal utilities of these goods are reduced to the point fixed by the value of said cost goods.

"This argument may be illustrated in the following manner: Suppose that the production of consumers' goods X, Y, and Z, single units of which are valued respectively at 20, 18, and 16, constitute the possible uses of cost good A of which 6 units, and only 6, are available. Suppose, further, that 1 unit of A will produce a unit of X, Y, or Z, and that every unit added to the supply of X, Y, or Z will reduce its value 2 points. That is to say, if 2 units of X are put upon the market instead of 1, its value per unit will be 18 instead of 20, and if 3 units are marketed, its value will be 16 instead of 18, and so on.

"We have first to consider the most economical uses to which the 6 available units of A may be put. Obviously all of them may be used for the production of 6 units of either X, Y, Z, or some of them may be used for the production of one of these commodities and the remaining ones for the others. Of these possible alternative uses that will be most profitable which will result in the aggregate product having the highest value?

"If all 6 units are employed in the production of X, the total value of the product will be 60, since each unit of X in that case will be valued at 10. If all are used in the production of Y, the total value will be 48, and if all are used in the production of Z, the total value will be 36. It is clear, therefore, that if only one of these commodities is produced it will be X. By using 3 units of A in the production of 3 units of X, and 2 in the production of 2 units of Y, and 1 in the production of 1 unit of Z, however, a total product valued at 96 will result, since with a supply of each commodity of the amount indicated the value of the final unit of each will be 16, and there will be, all told, 6 units for sale.

"No other disposition could be made of the 6 units of A that would produce a result so valuable as this. If, for example, the 1 unit devoted to the production of Z should be withdrawn and applied to the production of an additional unit of either X or Y, a loss of value would result. If the additional unit produced were of Y, we should then have 3 units of X valued at 16 each, making a total of 48. The grand total is 48 plus 42 or 90, 6 less than when 1 unit of Z was produced. If the additional unit produced were of X instead of Y, the result would be 4 units of X valued at 14 each, or 56 and 2 units of Y valued at 16 each or 32, making a grand total of only 88.

"The most economical use of cost good A, then, will require the production of 1 unit of Z, the least important of the three consumers' goods in the production of which it could be used, and, therefore, properly termed the marginal product. X and Y may be called A's supramarginal products.

"Under these circumstances, the value of A will be 16, that is the value of its marginal product, since it is this product for the existence of which a single unit of A, added to a previous supply of 5 units, is indispensable. It is this valuation, however, that determines the number of units of X and Y that can profitably be produced, and hence their marginal utility and value. In this sense, therefore, the value of X and Y may be said to be determined by their costs, that is by the value of cost good A. It must not be forgotten, however, that the value which cost good A conferred upon its supramarginal products X and Y was itself derived from the value of its marginal product Z."

B. VALUATION OF COMPLEMENTARY GOODS

"In the explanation of the valuation of complementary goods, Von Wieser differs with Menger. In the determination of such valuation

the latter followed the method of measuring the loss that would result in each case from the withdrawal from the combination of each of the complementary goods or of a portion of each in turn, and assigned to each a value equal to such loss. In the following manner,² Von Wieser described and criticized Menger's method:

"Suppose three productive elements, employed in the most rational plan of production possible, promise in combination a product whose value amounts to 10 units of value. If the three elements were to be employed otherwise, in combination with other groups, they would certainly raise the return of these groups, but it is against our hypothesis—which is that of the most rational plan of production—that the return can be raised by 10 units; otherwise the first combination chosen would not after all have been the best. There is always an infinite number of ways in which the elements in question can be grouped, but there is always one plan, and that the best, which should be carried out: if this be given up in favour of another, the result must be smaller, even if only to a trifling extent.

"Suppose, again, that the three elements are employed in some plan other than the best—which, be it remembered, demanded their being combined with one another in a distinct group. Say that, by being each separately employed in some other group, the return of each of these three groups is raised by 3 units, and the three elements accordingly now produce a return amounting to 9 units of value.

"How in this case will the value of each single item be reckoned according to Menger's principle? By the decrease in return which ensues in the case of loss. In this case, the decrease amounts to 10 units—the full return of the best combination now broken up—of which, however, 6 can be recovered by the new employment of the two remaining elements. The loss, therefore, amounts finally to 4, and this is true indifferently of any of the three goods. Twelve, then, is the value of the three taken together. But this is impossible, since, when most profitably employed, they can give only a return of 10."

"According to Von Wieser, Menger erred in his method of procedure, and he suggested another, namely, that of determining the exact contribution of each complementary good through a series of algebraic equations, each of which would exactly represent the character and results of each combination into which it enters. For example, suppose a , b , c enter as complementary goods in the following proportions into the production of three commodities X, Y, and Z, valued respectively at 145, 160, and 260: into X, $2a$, $3b$, and $4c$; into

² *Der natürliche Werth*, tr. Christian A. Malloch (London: Macmillan & Co., Ltd., 1893), p. 83.

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Y, $3a$, $6b$, and $2c$; and into Z, $7a$, $2b$, and $8c$. Then the following algebraic equations may be formed: $2a + 3b + 4c = 145$; $3a + 6b + 2c = 160$; and $7a + 2b + 8c = 260$. The solution of these equations yields the following results: $a = 10$; $b = 15$; and $c = 20$. Since complementary goods actually enter into a great number of different combinations in the processes of production all the time in progress, ordinary accounting methods enable business men to form the necessary number of equations and thus readily to impute to each productive good its contribution to the product, not, of course, its physical contribution, since that is inseparable from the physical contributions of the other coöperating factors, but its contribution in value."

C. THE LAWS OF THE IMPUTATION OF VALUE

"In *Der natürliche Werth* Von Wieser developed the laws in accordance with which value is imputed to factors of production under different conditions of supply, demand, and quality. In the first place he showed that, in the case of production goods, which are available in stocks rather than individually, imputation follows the marginal law, that is, 'to each single item or quantity is imputed the smallest contribution which, under the circumstances, can be economically aimed at by the employment of this particular item or quantity.' Consequently an increase in the supply of a cost good will decrease the amount of value imputed to it, since it will lower its marginal product, and a decrease in its supply will have the opposite effect. Changes in the demand for such a good, through an increase or decrease in the number and kinds of productive combinations in which it is required, will in like manner change the value imputed to it. Goods of the same kind, but differing in quality, will have different values attributed to them according to their degrees of superiority, since a superior quality of good will bring an increased product to the combination of productive goods into which it enters, and such increase can only be imputed to its superiority.

"Applied to land, capital, and labor, these laws explain rent, gross profits, and wages. According to them, a share in the product must be imputed to land of any particular quality as soon as it becomes relatively scarce and to all lands as soon as they become relatively scarce. The amounts imputed to lands of different qualities will vary according to their degrees of superiority in substantial accord with the differential law expounded by Ricardo, but marginal lands will also yield rent as soon as they become relatively scarce. According to his view,

therefore, the Ricardian doctrine that rent is due to monopoly is true only in the sense that wages and profits are also due to monopoly, i.e., in the sense that a share in the joint produce is imputed to any of the cooperating factors of production only when its supply is limited relatively to the demand for it. In the same manner the shares of labor and capital in the joint product of the three factors of production is determined by the laws of imputation as well as the differences in the wages of different classes of laborers. Through its influence on supply monopoly affects the imputation of value and thus the distribution of wealth."

D. THE PROBLEM OF INTEREST AND VON WIESER'S SOLUTION OF IT

The explanation of interest presents an additional problem. The laws of the imputation of value would seem to explain why a share in the product is imputed to capital, but not why the amount imputed is always in excess of the value of the capital goods themselves. This problem does not arise in the case of land and labor because they are original and not produced factors. Von Wieser's treatment of this problem can hardly be regarded as satisfactory. It amounts to little more than an appeal to experience. "There is no doubt," he said,³ "that the total return of all three productive factors, land, capital, and labor, taken together, is large enough to replace the capital consumed, and give a net return. This is a notorious economic fact, and as little in need of proof as the fact that there are such things as goods, or such a thing as production. Of course, now and then, a productive undertaking may be unsuccessful and fail to cover its outlay; indeed, many undertakings furnish no usable product whatever. But these are exceptions. The rule is that net returns are obtained; indeed, net returns of such enormous magnitude that not only can the millions of human beings be supported, but capital can go on accumulating out of the surpluses."

"There remains, therefore, but one thing to ask—whether a share in this undoubted net return can be imputed to the factor capital. But the question cannot be put seriously. Why to capital alone should no such share be imputed? Once understood and granted that capital is one of the economic factors of production, to which, with the others, the productive return is ascribed, it is also understood and granted that to it belongs by right a share in the net return in which the productive return first embodies itself. Are we to suppose that capital is always in

³ *Der natürliche Werth*, pp. 126 and 127.

a position to produce only somewhat less than [enough to] replace itself? This would obviously be an arbitrary supposition. Are we, then, to suppose it capable only of replacing its own loss, however various the success of production may be? This supposition would clearly be no less arbitrary. Whoever denies net return to capital can only do so by denying it any return."

E. VON WIESER'S DOCTRINE OF COST

In order to bring Von Wieser's doctrines into relation and comparison with others it is necessary to note his conception of costs and "cost goods." The latter are so called because they are elements in the calculation of costs, and they are placed by Von Wieser in contrast with "monopoly goods," which are goods of "comparative rarity" as contrasted with the demand for them and with "the comparatively small quantity that can be produced."⁴ They (cost goods) in contrast "are goods easily accessible and abundant, or goods whose production can be indefinitely increased" such, for example, as "unskilled labour, coal, wood, and common metals, and also land devoted to industrial undertakings where there is no question of any particular advantage in situation. Things which are to be had in superfluity are not counted among cost goods; indeed they are not reckoned among economic goods at all. While monopoly goods are specific elements of individual industries, cost goods are the common cosmopolitan and indispensable powers and materials of production."⁵

Cost goods, in combination with each other and in different amounts, enter into the production of a large number of other goods some of which, *capital goods*, are destined to be employed in the production of other goods while some, *consumers' goods*, are destined to be consumed in the direct satisfaction of wants. The economical use of cost goods, therefore, requires calculation as to how they can best be utilized, whether in the production of this commodity or that or in this amount or that. "To say," therefore, "that any kind of product involves cost, simply implies that the economic means of production, which could doubtless have been usefully employed in other directions, are either used up in it, or are suspended during it. Costs are production goods when these are devoted to one individual employment, and, on account of their capacity of being otherwise employed, take the shape of outlay, expenditure. The measure for estimating costs is always the pro-

⁴ *Der natürliche Werth*, p. 108

⁵ *Ibid.*

ductive marginal utility, as it is found on consideration of all the employments economically permissible.”⁶

The value that is imputed to cost goods according to the marginal principle is transmitted by them to their products, either indirectly, by determining the quantity of such products which can be economically produced, or directly. The direct process is the usual one in the case of goods for the increase in the supply of which an abundance of cost goods are available, since in this case additional units of the goods in question can always be supplied by the sacrifice of the cost goods necessary to their production. Even in such cases, however, if circumstances arise which interrupt the flow of the supply of the requisite cost goods, the good in question will be valued according to its marginal utility and not according to its cost of production.⁷

The cost principle of valuation as thus explained, therefore, applies principally to goods which are produced frequently, regularly, and in large amounts and in particular to those in the production of which cost goods are exclusively employed. Products whose manufacture is strictly and narrowly limited by confessedly monopoly goods do not experience the influence of costs at all. “All alterations in costs in such cases go, not to products, but to the monopoly factors of production; every diminution of costs raises, and every increase lowers, the value of these factors.”⁸

The cost principle also holds for “capital goods,” that is, for the produced means of production. In the cases of these goods the return to be obtained from their use and the cost of their production stand in mutual relation to each other and tend toward equality.

“The greater the value of the return, the greater the costs that may be expended in producing it; and the greater will be the expenditure of costs, so far as is practicable and necessary; the smaller the requisite expenditure of costs, the smaller will finally be the value of the return, whether this results from the fact that production finally is correspondingly extended, or from the fact that the valuation of the utility is directly pressed down to the level of the costs. If a machine does very good work, that is a cause for valuing it highly; but if it can be cheaply produced, the machine itself, and, finally, its products also, will find a low value. The costs of producing capital transmit their effects right down to the fruits of the capital, however remote these may be, so long as they fall within the producer’s field of vision, and can be taken into consideration in the estimates of value.”

⁶ *Ibid.*, p. 175.

⁷ *Ibid.*, pp. 177 and 178.

⁸ *Ibid.*, p. 179.

"Products which come under the law of costs do not, however, come under it in all circumstances. To do so they must come under consideration as products, i.e. as dependent upon the elements from which they are formed. If they are estimated independently, if they are valued in isolation and for themselves, their own utility alone—or their marginal utility—will determine their value, without their productive marginal utility being taken into consideration at all."

"If society were ever to arrive, in its economic life, at such perfection and control that no plan of production ever miscarried, that there was no interruption in exchange, that no unforeseen loss of goods happened, that all acquisitions of goods could be anticipated to the fullest extent and in the most exact degree, that, finally, the demands should never vary or, at least, that the variations should always be adequately anticipated: in such circumstances the law of costs would be the only form in which the general law of value would appear as regards those goods in respect to which it holds. It is not to be expected that any disposition of affairs could bring social economy to such perfection. Even in the most perfect condition of society there will be changes, such as must for the moment limit or extend the sphere over which the law of costs holds sway."⁹

The law of costs as thus explained is simply one of the ways, the most common way, in which the marginal utility principle works out in practice. The complicated character of its operation obscures in some degree its connection with this principle or renders this connection somewhat difficult to trace, but does not break or destroy it. Marginal utility remains the source of value, but in the case of cost goods and of their products the determining marginal utility in most cases is that of a product other than the one whose valuation is under consideration. In order to see the operation of the marginal utility law we must observe the valuation process of the entire group of commodities involved in the production process. In this group the cost goods will be so distributed as to secure the maximum of utility and the maximum of value. That is the goal always in view. Costs come into consideration in this distribution process when the relative advantages of the possible uses of the cost goods are weighed and the amount of what is lost or sacrificed by the employment of the goods in a particular way is calculated. When the entire series of actions and reactions is observed, this cost calculation is seen to be based upon the utility of the marginal product.

⁹ *Der natürliche Werth*, pp. 179-180.

F. OTHER COST DOCTRINES

Between Von Wieser's doctrine and that of the entrepreneur, the accountant, and many economists there is no conflict. What he and other members of the Austrian School have done is to supplement the older theory by showing how cost goods are themselves valued, to give a more complete and detailed account and explanation of this particular valuation process, and to point out the limitations of the cost principle.

There are two other forms of the cost-of-production theory of value which require attention in this connection. At least one of them is in real conflict with the marginal utility theory. One of these forms reduces all costs to labor-time units and explains the value of these units by the cost of their production. The earliest form of this theory is commonly described as "the iron law of wages," which is simply the cost-of-production theory rigidly applied to the valuation of labor. The cost of production of labor, so runs this theory, is the value of the food, clothing, shelter, and other essentials required to support the laborer in reasonable health and strength, to enable him to raise a family large enough and strong enough to take his place, and to maintain a constant and unchanging labor supply. The argument in support of this theory is identical with the cost-of-production argument as applied to commodities. The value of labor, it is argued, cannot fall below this point because, if it did, disease and death would reduce the supply of labor and thus raise its value to the subsistence point; and it cannot rise above this point because, if it did, the supply of labor would increase sufficiently to bring the wages down again to the subsistence level.

Observation of the fact that the wages of labor in most progressive countries had risen and were maintained above the subsistence point and that the wages of all laborers except those of the lowest class were regularly maintained above this point by a much wider margin than that which separates the wages of the lowest class from this point, resulted in the substitution of the "standard-of-life" doctrine for the "iron law." According to this doctrine the point above which wages cannot rise and below which they cannot fall is the cost of production of those necessities, comforts, and luxuries which the laborers themselves *deem to be essential* to their own maintenance and that of a family sufficient to maintain an unchanging supply of labor. Instead of an external

force over which the laborer has no control, the determining element in his wages, according to this doctrine, is his own opinion or will, which, however, those who held this doctrine considered to be determined by custom.

The weakness of the doctrine has already been pointed out in a preceding chapter.¹⁰ The force upon which reliance is placed for giving power to custom, namely, control of the sex instinct, operates too late. It can only increase or decrease population after the lapse of a generation, during which time a different custom might be established. Moreover this theory could not explain the differences in the wages of different classes of labor. No one could seriously maintain that these differences are explainable by the different degrees of strength of the sex instinct.

Neither form of this labor-cost theory can escape the charge of circular reasoning, the value of labor being explained by the value of the commodities essential to its production and their value in turn by the value of labor.

A more formidable version of the cost-of-production theory of value explains the value of labor in terms of labor sacrifice instead of the value of goods essential to the laborer's existence or his standard of life and, like the form of the labor theory just described, explains the value of other commodities in terms of labor costs. According to this theory, the idea or conception of value is associated with and derived from the obstacles to be overcome and the efforts to be put forth in production instead of the utility or satisfaction derived or expected to be derived from the goods when produced. In its most refined and best-elaborated form, the idea of the marginal sacrifice of labor is developed and made the source of value.

Von Wieser admitted that this form of the labor theory of value would be tenable in a condition of society very different from the actual one in which men live to-day, namely in one in which the supply of labor is so great that all wants could be supplied by a portion of it—in which, in other words, the supply of labor is in excess of the need for it. In such a society, he said, "Value would be the importance which goods would have in virtue of the interest every one would feel in securing exemption from the undesirable pain of labour. Wealth would be equivalent to great possessions of goods securing immunity from the pain of labour. The advantage of wealth would be rest. Poverty would not mean want, but only unrest, pain. By a little in-

¹⁰ Ch. XVIII, sec. C.

crease of exertion any advantage of prior possession could soon be overtaken.

"That this is not the poverty which the poor man knows; that this is not wealth as men really estimate it: that this is not the value or the economy of which we have any experience:—requires no proving. If merely by pain men could be rich, the very people who are to-day the poorest would long ere this have become the richest. Nothing in reality is as assumed by the labour theory. Our desires are too great, the material resources at our disposal too limited, our labour power too small. No economical possession can be lost without some enjoyment being lost. The idea of utility cannot possibly be separated from the purposes of economy and the conception of value."¹¹

That "consideration of the sacrifices of labour does not enter into the valuation of labour as a cost good and thus into the cost value of all products, *alongside of and bound up with* the consideration of the utility of labour" is maintained by Von Wieser on logical grounds. "Productive labour," he said, "can never have value on account of the utility which is dependent upon its success or non-success, and also on account of the personal effort which it involves." An act of labor has use value "when in the event of its failure, the utility has to be given up, because the labour cannot be put forth a second time; or when, in the same case, the repetition of the service demands that another use of the labour be abandoned, and its expected utility with it; in other words when there is not sufficient labour available to meet the demand, when labour power is not available in superfluity"; and a service would be estimated according to the sacrifice involved "when, in event of failure one would not need to give up the utility, because it could always be obtained again at no greater expense than the repeated effort; in other words, when all the available labour power had not a predetermined and distinct destination, but when there was always free labour power available in superfluity. Labour could only be estimated at once by its utility and by personal effort, if it were at once capable and incapable of repetition; if there were at once a deficiency and superfluity of labour powers. Where the available labour power is less than the demand, labour value will be estimated exclusively according to utility. Where the available labour power is in excess of the demand, it will be valued exclusively with reference to the labour sacrifice."¹²

The contention of Von Wieser that the conditions of actual life are

¹¹ *Der natürliche Werth*, pp. 195, 196.

¹² *Ibid.*, pp. 196, 197.

not such as to render the labor-sacrifice theory of value tenable does not prevent him from a recognition of the part such sacrifices play in economic life. "Before undertaking any labour," he said,¹⁸ "man has to consider whether the utility outweighs the effort . . . ; the circumstance that expenditure of labour is felt to be a burden, must somehow affect the selection of employments to which it is devoted . . . ; "when labour is once decided on, its performance must always be ordered in such a way that the toil and danger are made as light as possible"; and "the fact that labour is felt to be a burden has the effect of curtailing somewhat the supply of labour as a whole."

Von Wieser also criticized the arguments employed by the labor-cost theorists in their attempts to reduce capital to labor or to prove labor to be ultimately the only cost good. He distinguished two forms of this argument, one based upon the claim that "the effect of all capital is either to save labour or to increase the result of labour" and the other "based upon the fact that all capital has in the last resort been produced by labour." Regarding the first form of this argument he maintained that not all forms of capital either save labor or increase its results—for example, raw materials—and that labor frequently supplants capital—for example, when wages are low. The second form of this argument he found full of contradictions. It asserts first that "labour is the only productive power" and "that capital is merely its dead instrument"; and then second, that capital "contributes its part in determining the cost value of goods." It also overlooks the fact that a great part of the capital costs it relies upon were expended in the remote past and are unidentifiable and immeasurable. Von Wieser also adds that "if all that was wanted economically to replace the capital consumed was to regain it by labour, then capital might be economically measured by labour alone, and would represent economically nothing but labour. If, for instance, coal consumed could be replaced simply by the labourers bringing new coal to the surface, without any assistance whatever beyond the labour of their hands, the coal would be worth just so much labour as was needed to bring it to the surface. If a machine could be made by labourers, without any other assistance than that afforded by other labourers, collecting for them valueless materials, and simply using their bodily strength to shape and combine them, the value of this machine would be measured by the quantity of labour that had been expended upon it. So long, however, as capital is consumed in order to produce capital, the factor of capital cannot be dismissed

¹⁸ *Der natürliche Werth*, pp. 197-199.

from among the costs of capital, and, therefore, from the costs of all the products of capital; and, so long as it is credited with the use value which experience assures us may be received from it, this factor will continue to be counted alongside of labour in the estimates of costs."¹⁴

Another weakness of the cost theorists is the fact that they are forced to admit that interest enters as an element into costs without, however, being able to harmonize that fact with their theory, and that they deny that rent enters into costs, whereas, as a matter of fact, it does enter into them whenever it accrues on marginal lands.¹⁵

¹⁴ *Ibid.*, pp. 201, 202.

¹⁵ *Ibid.*, see Chs. XI and XII, pp. 203-209.

CHAPTER XXII

EUGEN VON BÖHM-BAWERK

The most widely known of the Austrian group is Eugen von Böhm-Bawerk, who was born in Brünn, Austria, December 2, 1851. He studied law and political science at Vienna and political economy at Heidelberg, Leipzig, and Jena, married a sister of Von Wieser and became privatdocent at Vienna in 1880. He was soon transferred to Innsbruck as extraordinary professor and in 1884 raised to the rank of ordinary professor. In 1889 he became a member of the upper house of the Austro-Hungarian Parliament, and Ministerium Rath and chief secretary to the Austro-Hungarian Minister of Finance. In 1904 he became Finance Minister. During the latter years of his life he was professor at the University of Vienna.

In 1881 he published a little book entitled *Rechte und Verhältnisse* in which he analyzed the economic character of rights and relations and their place in the doctrine of economic goods. This was followed in 1884 by a volume entitled *Geschichte und Kritik der Kapitalzins-Theorien*. A second and enlarged edition of this book was published in 1900 and a third in 1914. An English translation of the first edition was made by Professor William Smart of Glasgow and published in London in 1890. An English translation of an addendum, reviewing discussions on the subject of interest that had appeared in the interval between the first and second editions, was made by Professor Siegmund Feilbogen of the University of Vienna and Professor William A. Scott of the University of Wisconsin and, together with an introductory chapter by the latter describing other important changes and additions in the second edition, was published in London in 1903 under the title *Recent Literature on Interest (1884-1899)*; *A Supplement to "Capital and Interest" by Eugen v. Böhm-Bawerk*. In 1886 Böhm-Bawerk published *Grundzüge der Theorie des wirtschaftlichen Güterwerthes* and in 1888 *Positive Theorie des Kapitals*. Second and third enlarged editions of this latter work were also published, the latter in 1912. Professor William Smart published an English translation of this book in 1891. In 1896 Böhm-Bawerk published *Zur Ab-*

schluss der Marxischen System and in 1900 *Einige strittige Frage der Kapitals-Theorien*.

In these books Böhm-Bawerk made valuable contributions to every branch of the Austrian theory, but his greatest work was in the field of interest. In his *Geschichte und Kritik der Kapitalzins-Theorien* he explained the problem of interest, classified previous attempts at its solution, and subjected them to thoroughgoing and exhaustive criticism. With the ground thus cleared he developed his own solution in the *Positive Theorie des Kapitals*.

A. THE PROBLEM OF INTEREST

The problem of interest he described as that of explaining how and why the owner of capital is able to draw from it "a permanent net income."¹ "What we have to explain," he said,² "is the fact that when capital is productively employed, there regularly remains over in the hands of the undertaker a surplus proportional to the amount of this capital. This surplus owes its existence to the circumstance that the value of the goods produced by the assistance of capital is regularly greater than the value of the goods consumed in their production. The question accordingly is, Why is there this constant surplus value?"

In the loan form the problem may be stated by the question, Why is a person who loans another \$100 for a year able uniformly to get back at the end of the year not simply the \$100 he parted with but an additional sum of four or five or six or ten dollars?

In Book I, in which he reviewed the discussions of interest from the earliest to modern times, he traced what he called the development of the problem, showing how the explanation of interest was frequently confused with its social justification and how the explanations that were offered commonly failed because the problem itself was not clearly grasped and understood. The attempts to grapple with the subject he classified under the heads "The Productivity Theories," "The Abstinence Theory," "The Labor Theories," "The Exploitation Theory," and "Minor Systems."

B. THE PRODUCTIVITY THEORY

The productivity theorists seek for the explanation of interest in the productivity of capital, which Böhm-Bawerk showed may have

¹ *Geschichte und Kritik der Kapitalzins-Theorien*, Smart's translation (London: Macmillan & Co., Ltd., 1890), pp. 1 and 2.

² *Ibid.*, pp. 77 and 78.

four possible meanings, namely (a) the capacity or power to serve "towards the production of goods"; (b) the power to serve "towards the production of more goods than could be produced without it"; (c) its power to serve "towards the production of more value than could be produced without it"; and (d) its power to produce "more value than it has in itself." While it is the last of these meanings that the advocates of the productivity theory usually have in mind, Bohm-Bawerk shows that they differ greatly among themselves in the clearness and precision of their expressions and in the adequacy of their arguments. One group which he characterized as "naïve" content themselves with merely asserting the productivity of capital (the first of the above meanings of the term *productivity*) or with demonstrating physical productivity (the second of the above meanings) without recognizing the necessity, or at least without taking the trouble, to demonstrate that productivity in either of the first two senses indicated above necessarily involves productivity in the third and especially in the fourth sense. A second group, which he characterized as "indirect," "are distinguished by the fact that to the assertion and illustration of the productive power of capital they add a more or less successful line of argument to prove that this productive power must lead (and why it must lead) to the existence of a surplus value which falls to the capitalist."³

As representatives of the first of the above groups Bohm-Bawerk selected Say, Schön, Riedel, Roscher, Leroy-Beaulieu, and Sciolaja. All these writers agree "in making surplus value result from the productive power of capital, without showing any reason why it should do so, but beneath this agreement in expression there may lie two essentially different ideas. The productive power of capital referred to may be understood, in the literal sense, as Value Productivity, as a capacity of capital to produce value directly; or it may be understood as Physical Productivity, a capacity of capital to produce a great quantity of goods or a special quality of goods, without further explanation of the existence of surplus value, it being regarded as perfectly self-evident that the great quantity of goods, or the special quality of goods, must contain a surplus of value."⁴

Bohm-Bawerk skilfully demonstrated the inadequacy of these arguments and the impossibility of proving that capital can produce value directly. On the latter point he said:

³ *Geschichte und Kritik*, p. 119.

⁴ *Ibid.*, p. 132.

"Literally to ascribe to capital a power of producing value is thoroughly to misunderstand the essential nature of value, and thoroughly to misunderstand the essential nature of production. Value is not produced, and cannot be produced. What is produced is never anything but forms, shapes of material, combinations of material; therefore things, goods. These goods can of course be goods of value, but they do not bring value with them ready made, as something inherent that accompanies production. They always received it first from outside—from the wants and satisfactions of the economic world. Value grows, not out of the past of goods, but out of their future. It comes not out of the workshop where goods come into existence, but out of the wants which those goods will satisfy. Value cannot be forged like a hammer, nor woven like a sheet. If it could, our industries would be spared those frightful convulsions we call crises, which have no other cause than that quantities of products, in the manufacture of which no rule of art was omitted, cannot find the value expected. What production can do is never anything more than to create goods, in the hope that, according to the anticipated relations of demand and supply, they will obtain value. It might be compared to the action of the bleacher. As the bleacher lays his linen in the sunshine, so production puts forth its activity on things and in places where it may expect to obtain value as its result. But it no more creates value than the bleacher creates the sunshine."⁵

Those who consider the demonstration of the physical productivity of capital sufficient Böhm-Bawerk criticized as follows⁶: "I grant at once that capital actually possesses the physical productivity ascribed to it—that is to say, by its assistance more goods can actually be produced than without it. I will also grant—although here the connection is not quite so binding—that the greater amount of goods produced by the help of capital has more value than the smaller amount of goods produced without its help. But there is not one single feature in the whole circumstances to indicate that this greater amount of goods must be worth more than the capital consumed in its production,—and it is this phenomenon of surplus value we have to explain."

As representatives of the indirect productivity theorists Böhm-Bawerk selected Lauderdale, Malthus, Carey, Peshine Smith, Von Thunen, and Strasburger, and he analyzed their attempts to connect the demonstration of the physical productivity of capital with the production of surplus value with the result summarized in the following quotation⁷:

⁵ *Ibid.*, pp. 135, 137.

⁶ *Ibid.*, pp. 138 and 139.

⁷ *Ibid.*, pp. 179 and 180.

"From the first, it was a hopeless endeavor to explain interest wholly and entirely from a productive power of capital. It would be different, if there were a power that could make value grow directly, as wheat grows from the field. But there is no such power. What the productive power can do is only to create a quantity of products, and perhaps at the same time to create a quantity of value, but never to create surplus value. Interest is a surplus, a remainder left when product of capital is the minuend without at the same time increasing the subtrahend in the same proportion. For the productive power is undeniably the ground and measure of the value of the capital in which it resides. If with a particular form of capital one can produce nothing, that form of capital is worth nothing. If one can produce little with it, it is worth little; if one can produce much with it, it is worth much, and so on;—always increasing in value as the value that can be produced by its help increases; i.e. as the value of its product increases. And so, however great the productive power of capital may be, and however greatly it may increase the minuend, yet so far as it does so, the subtrahend is increased in the same proportion, and there is no remainder, no surplus of value."

C. THE USE THEORY

This is an offshoot of the productivity theory and, with the exception of Say, who offers this side by side with the productivity theory, was developed exclusively by German economists, notably by Hermann and Menger. The essence of this theory is that "besides the substance of capital, the use [*Gebrauch, Nutzung*] of capital is an object of independent nature and of independent value" and that in the value of this use is found the explanation of the surplus value which is interest, the value of the product of capital being the sum of the values of its substance and its uses.⁸

The demonstration of the existence of these independent uses and of their independent valuation is an easy matter in the case of durable goods, an appeal to everyday experience being sufficient, for instance, the rent of horses, automobiles, houses, etc. It is not so easy and simple a matter in the case of raw materials and other forms of capital which change their form with each use. In his *Staatswirtschaftliche Untersuchungen*, published in 1832, however, Hermann made the attempt. The substance of his argument is that "technical processes are able, throughout all the change and combination of the usefulness of goods, to preserve the sum of their exchange values undiminished, so that goods, although successively taking on new shapes, still continue un-

⁸ *Geschichte und Kritik*, p. 186.

changed in value. Iron ore, coal, labor, obtain, in the form of pig iron, a combined usefulness to which they all three contribute chemical and mechanical elements. If, then, the pig iron possesses the exchange value of the three exchange goods employed, the earlier sum of goods persists, bound up qualitatively in the new usefulness, added together quantitatively in the exchange value.

"Even goods of perishable material and of only temporary use, by constantly changing their shapes while retaining their exchange value, become re-created so that their use becomes lasting. Thus, as it is in the case of durable goods, so it is in the case of goods changing their form qualitatively, while retaining their exchange value; this use may be conceived of as a good in itself, as a use [*Nutzung*] which may itself obtain exchange value."

"Lasting or durable goods, and perishable goods which retain their value while changing their shape, may thus be brought under one and the same conception; they are the durable basis of a use which has exchange value. Such goods we call capital."⁹

The second part of the argument, namely, the proof that the value of the product is equal to the sum of the values of its substance and its uses, is based by Hermann upon what he called the peculiar use of "technical processes" in "the putting together and keeping together, the storing and keeping ready for use, of all the technical elements of the production, from the acquiring of its first basis in natural goods, on through all technical changes and commercial processes, till the product is handed over in the place, at the time and in the quantity desired. This holding together of the technical elements of the product is the service, the objective use of floating capital." This service, Hermann claimed, "must be paid for by the buyer." "It is actually a new and peculiar use which is handed over to him along with the wealth itself." It is connected with "the period of time during which each element of exchange value is embodied in the product. For from that moment when a labour or a use is employed in the making of a product, the disposal of it in any other way is made impossible."¹⁰

In his exposition of the use theory Menger laid all the emphasis upon the time element attended to by Hermann in the passage above quoted. He called it the "disposal" over capital for a period of time which, he said, is independently valued and must be counted as an essential element of the costs of production.

⁹ Quoted by Böhm-Bawerk, *Ibid.*, pp. 194 and 195.

¹⁰ Quoted by Böhm-Bawerk, *Ibid.*, 197 and 198.

Böhm-Bawerk's criticism of all forms of the use theory centered in a denial of the existence of the special uses upon which it is based. He begins with an analysis of the concept "the use of goods" and concludes that "the function of goods can consist in nothing else than in the giving off, or rendering up, or putting forth of power; or, to use the terminology of physical science, the passing of energy into work"¹¹; that "the individual useful forth puttings of natural powers" constitute the services and the only services of material things. Goods which render their material services "as it were, at a blow, in one more or less intensive service, so that their first use quite exhausts their capability of service" he classified as "perishable goods"; those "which successively give off a number of material services . . . in such a way that they are easily distinguished, limited and counted,—as, e.g. the single blows of a coining press, or the operations of the automatic printing press of a great newspaper," or which give off these services "in unbroken, similar continuance,—as, e.g. the shelter silently given over long periods of time by a dwelling house" he classified as "durable goods." Consumption he defined as "the exhaustion of capability to render material services."¹²

In the case of durable goods the material services are capable "of obtaining complete ^{exclusive} economical independence," as the phenomena of tenancy, hire, etc., since in all these transactions "one portion of the services of which a good is capable is divided off and transferred separately, while the rest of the anticipated services, be they many or few, remain with the ownership of the body of the good, in the hands of the owner."

Bohm-Bawerk concludes (a) "that we value and desire goods only on account of the material services we expect from them," these services forming "the economical substance with which we have to do," "the goods themselves" forming only the bodily shell; (b) that "the economical substance" of the acquisition or transfer of "entire goods" "lies in the acquisition and transfer of material services," of "the totality of these services," "the transference of the goods themselves" constituting "only an accompanying and limiting form"; and (c) "that the value and price of a good is nothing else than the value and price of all its material services thrown together into a lump sum; and that accordingly the value and price of each individual service is contained in the value and price of the good itself."

¹¹ *Geschichte und Kritik*, pp. 220, 223, 225, and 226.

¹² *Ibid.*

Menger's peculiar form of this theory, in which the disposal over goods for a period of time is asserted to be the special use or service the payment for which constitutes interest, Bohm-Bawerk shows¹³ is disproved by the fact that in a gift or a sale of goods, in which the amount of "disposal" is infinitely great since it lasts for all time, and the value of such a service, according to Menger's theory, should, therefore, be correspondingly great, the value transferred, as everyday experience shows, is very far from infinite, indeed has no apparent relation to the period of time over which the disposal over the goods extends. The question, therefore, arises, Why should the value of the disposal over goods, sold in units of short periods, be infinitely greater than when disposed of all at once, in a lump, so to speak?

D. THE ABSTINENCE THEORY

The author of this theory was Nassau Senior, whose contribution to the explanation of value was described in a preceding chapter. In the form of the sacrifice theory Senior supplied a deficiency in the explanation of value left by Ricardo and others who recognized the part played by interest in valuation but failed to furnish an explanation of it. Senior said that all costs of production should be reckoned in terms of sacrifices, one of which was the sacrifice of abstinence, others being those of labor and of risks.

Bohm-Bawerk admits that there is a core of truth in this theory. "It cannot be denied," he said,¹⁴ "that the making, as well as the preservation of every capital, demand an abstinence from or postponement of the gratification of the moment; and it appears to me to admit of as little doubt that this postponement is considered in, and enhances the value of those products that, under capitalist production, cannot be obtained without more or less of such postponement"; but, notwithstanding this core of truth, he insisted that the doctrine of Senior does not meet the requirements for an explanation of interest. In the first place it should be noted, he said, "that the existence and the height of interest by no means invariably correspond with the existence and the height of a sacrifice of abstinence. Interest, in exceptional cases, is received where there has been no individual sacrifice of abstinence. High interest is often got where the sacrifice of the abstinence is very trifling—as in the case of Lassalle's millionaire—and low interest is often got where the sacrifice entailed by the abstinence is very great." In the

¹³ *Ibid.*, pp. 262 and 263.

¹⁴ *Ibid.*, p. 276.

second place he insisted that it is "a logical blunder to represent the renunciation or postponement of gratifications, or abstinence, as a second independent sacrifice in addition to the labour sacrificed in production."¹⁵ His contention is that "in reckoning the sacrifice made for any economic end, the direct sacrifice in means—that sacrifice which is first made—and the indirect sacrifice, which takes the shape of other kinds of advantage that might have been obtained in other circumstances by the means sacrificed, can be calculated only alternatively and never cumulatively. I may consider the sacrifice of my pleasure trip to be either the £30 which it has directly cost me, or the Persian carpet which it has indirectly cost me, but never as the £30 and the carpet. Just in the same way our rustic may consider, as the sacrifice which the catching of three fish costs him, either the day's work directly expended, or the three hares indirectly sacrificed (or, say, the gratification he gets from eating them), but never the day's work and the gratification obtained through shooting the hares."¹⁶

The same conclusion follows from the comparison of occupations which yield immediate gratification with those which yield remote ones, for example planting fruit-trees with fishing or hunting. In this case also, "if the gratification which might have been got through the work is reckoned as sacrifice, then not the smallest portion of the work itself can be reckoned in the sacrifice; while, if the work is reckoned as sacrifice, there cannot be added to that in the calculation the smallest fragment of the other kinds of enjoyment that were renounced. To do otherwise would be to make a double reckoning, which would be just as false as if the man in our former illustration had reckoned the cost of the pleasure trip as the £30 actually paid, and besides as the Persian carpet which he might have bought with the £30."¹⁷

Bohm-Bawerk's third objection to Senior's theory is the fact that it is based upon the sacrifice-cost theory of value, which, with the other Austrians, he regarded as unsound.

E. THE LABOR THEORIES

The feature common to this group of theories is the explanation of interest "as a wage for labour rendered by the capitalist." This labor is differently described by the English, French, and German repre-

¹⁵ *Geschichte und Kritik*, pp. 277, 278.

¹⁶ *Ibid.*, p. 279.

¹⁷ *Ibid.*, pp. 279, 280.

sentatives of the theory. The English group, of which Böhm-Bawerk takes James Mill as the representative, means by it the "labor embodied in the capital factor of production" described as "accumulated," "hoarded," or "indirect" labor or as labor "in a secondary sense." The French group, represented by Courcelle-Seneuil, call it the labor involved in the saving of capital; and the German group, represented by Schaffle, describe it as the labor of the entrepreneur "in directing the economical labour and the economical means of the nation in consonance with the national need, and, therefore, in exerting those functions which, in the ideal state of collective ownership, would be exerted through national officers."

In criticism Bohm-Bawerk shows that what James Mill has aimed to explain by reference to the "hoarded" or "accumulated" labor "embodied in the capital factor of production" is not interest but the value of capital itself. "It may be allowed to pass," he said, "that he calls capital 'hoarded' labour; that he calls the employment of capital employment of a mediate secondary labour; and that he considers the wearing out of the machine as a giving out of the hoarded labour by installments. But why then is every installment of hoarded labour paid by an annuity which contains more than the original value of that labour, namely, the original value plus the usual rate of interest thereon? Allowing that the remuneration of capital is the remuneration of mediate labour, why is the mediate labour paid at a higher rate than the immediate; why does the latter receive the bare rate of wages while the former receives an annuity higher by the amount of the interest? Mill does not solve this question. He takes the fact that a capital, according to the state of competition in the market, has equal value with a certain number of annual payments that already include the interest and uses this fact as a fixed centre, as if he had not taken upon himself to explain the profit, and therefore also the extra profit, that is contained in the annuity."¹⁸

The labor here under consideration as described by the French group Böhm-Bawerk regarded as substantially equivalent to abstinence, and as an explanation of interest open to the same objections as the abstinence theory. The German form of the theory he regarded as worthy of attention as a justification, but inadequate as an explanation, of interest. If interest is to be explained by this kind of labor, he said, "there must be shown some normal relation between the alleged result, the interest of capital, and the asserted cause, the expenditure of labour

¹⁸ *Ibid.*, p. 299.

on the part of the capitalist. But in the actual world we should look for any such relation in vain. A million bears 50,000 of interest, whether the saving and employment of the million has cost its owner much, little, or no trouble. A million bears ten thousand times as much interest as a hundred, even if there should be infinitely more anxiety and vexation in the saving of the hundred than in the saving of the million. The borrower who guards another man's capital and employs it, notwithstanding this 'expenditure of labour,' receives no interest; the owner receives it although his labour be nil. Schaffle himself once was fain to confess: 'A distribution of wealth according to amount and desert of work, obtains neither among the capitalists as compared with each other, nor among the workers as compared with the capitalists. The distribution is neither guided by any such principles nor yet does it harmonize with them accidentally.'

"But if experience shows that interest stands outside of any relation to the labour performed by the capitalist, how in reason can the principle of its explanation be found there?"¹⁹

F. THE EXPLOITATION THEORY

The most complete and noteworthy expositions of this theory are those of Rodbertus and Karl Marx, which have been presented in an earlier chapter of this book. The essence of the theory is that economic goods are the product of labor and of labor only, that to labor by right belongs the entire product, and that the capitalist gets a share of this product only because of the historical accident of his being placed in a position which enables him to exploit the laborer and thus to force from him a part of the results of his own efforts.²⁰

In criticism Böhm-Bawerk takes issue in the first place with Rodbertus's proposition "that all goods, economically considered, are products of labor and of labour only." He calls attention to the fact that this statement means that "the cooperation of natural powers in production," which Rodbertus recognizes as a physical fact, "is a matter of utter indifference *so far as human economy is concerned*," and to this he opposes the fact, attested by both reason and experience, that "even purely natural goods have a place in economic consideration, provided only they are scarce as compared with the need for them." In illustration he cites the case of a "lump of solid gold in the form of a meteoric stone." The effect of scarcity upon value as distinguished from

¹⁹ *Geschichte und Kritik*, p. 311.

²⁰ Böhm-Bawerk summarizes Rodbertus's reasoning, *ibid.*, pp. 328-337.

labor he further illustrated by the familiar case of the Rhine wine which, as compared with an inferior variety, "is often valued economically at ten times the amount of the other" though "human labour had done pretty much the same for both."²¹

He next criticized the reasoning by which the proposition that the entire product of labour *ought to go to the laborer* is made to support the conclusion that interest is the result of exploitation. On this point he says²²: "The perfectly just proposition that the labourer should receive the entire value of his product may be understood to mean, either that the labourer should now receive the entire present value of his product, or should receive the entire future value of his product *in the future*. But Rodbertus and the Socialists expound it as if it meant that the labourer should *now* receive the entire *future* value of his product, and they speak as if this were quite self-evident, and indeed the only possible explanation of the proposition." The proof that there is a vital difference between the present and the future value of a product and that in this difference and not in the exploitation of labour or in anything else is to be found the explanation of interest is the work which Bohm-Bawerk set for himself in the volumes we are reviewing.

In Karl Marx's exposition of the exploitation theory Bohm-Bawerk finds "all the essential propositions" of Rodbertus but "in a somewhat altered dress,"²³ its peculiarity being the basic doctrine that the amount of socially necessary labour expended regulates the exchange value of goods. Though his criticism of Rodbertus, therefore, applies also to Marx, he points out what he regards as the fallacies in Marx's fundamental doctrine.²⁴

There are three steps in Marx's attempt to demonstrate this doctrine: namely, (1) that the exchange of two goods implies the existence of a common element of equal quantity in the two; (2) that "this common element cannot be the use value, for in the exchange of goods the use value is disregarded"; and (3) that "if the use value of commodities be disregarded, there remains in them only one common property—that of being products of labor." Bohm-Bawerk passed the first step without criticism, but he asserts that the second "can only be maintained by a logical fallacy of the grossest kind," namely, that of confusing a genus with the special forms in which it manifests itself. For

²¹ *Ibid.*, pp. 337, 338. Italics are mine.

²² *Ibid.*, pp. 342, 343.

²³ *Ibid.*, p. 374.

²⁴ *Ibid.*, pp. 381-383.

example, from the proposition that "the *special forms* under which use value may appear,—whether the use be for food, clothing, shelter, or any other thing,—are disregarded" in the determination of exchange value, Marx drew the conclusion that *use value per se* is disregarded; that is, to use Böhm-Bawerk's illustration, from the fact that in the explanation of a salary of \$1,000 per night paid each of three singers the question of whether the singer be a bass, a tenor, or a soprano is disregarded, the conclusion is drawn that the question of whether the singer has a good, bad, or indifferent voice, that is, the quality of the voice, in general is disregarded.

The third step, according to Böhm-Bawerk, involves still worse fallacies. "If the use value of commodities is disregarded, says Marx, there remains in them only one common property—that of being products of labor." Böhm-Bawerk asks, "Is this true? Is there only one property? In goods that have exchange value, for instance, is there not also the property of being scarce in proportion to the demand? Or that they are objects of demand and supply? Or that they are appropriated? Or that they are natural products?"

"Now why, I ask, may not the principle of value reside in any one of these common properties, as well as in the property of being the product of labour?"

"But this is not all. Is it even true that in all goods possessing exchange value there is this common property of being the product of labour? Is virgin soil a product of labour? Or a gold mine? Or a natural seam of coal? And yet, as every one knows, these often have a very high exchange value. But how can an element that does not enter at all into one class of goods possessing exchange value be put forward as the common universal principle of exchange value? How Marx would have lashed any of his opponents who had been guilty of such logic!"

The deductive argument having failed, Böhm-Bawerk inquires whether there is any support for Marx's doctrine in experience. In answer to this query he finds no less than five groups of goods the value of which experience shows is not regulated in accordance with the labor principle,²⁵ namely, (1) "scarce," non-reproducible goods; (2) "all goods that are produced not by common, but by skilled labour"; (3) goods produced by "abnormally badly paid labour"; (4) fluctuations above and below normal costs admitted by all costs theorists; and (5) goods which require the greater advance of previous labor.

²⁵ *Geschichte und Kritik*, pp. 383-387.

"To sum up," he says,²⁶ "the asserted 'law' that the value of goods is regulated by the amount of the labour incorporated in them, does not hold at all in the case of a very considerable proportion of goods; in the case of the others, does not hold always, and never holds exactly. These are the facts of experience with which the value theorists have to reckon."

He summarizes his criticism of Marx's form of the exploitation theory in the following passage²⁷: "Sharing in Rodbertus' mistaken idea that the value of all goods rests on labour, he falls later on into almost all the mistakes of which I have accused Rodbertus. Shut up in his labour theory Marx, too, fails to grasp the idea that Time also has an influence on value. On one occasion he says expressly that, as regards the value of a commodity, it is all the same whether a part of the labour of making it be expended at a much earlier point of time or not. Consequently he does not observe that there is all the difference in the world whether the labourer receives the final value of the product at the end of the whole process of production, or receives it a couple of months or years earlier; and he repeats Rodbertus' mistake of claiming now, in the name of justice, the value of the finished product as it will be then."

G. MINOR SYSTEMS

Under this head Böhm-Bawerk includes explanations of interest offered by writers whom he classes as eclectics and what he calls the "The Labor Fructification Theory" of Henry George. The eclectics combine two or more of the theories already criticized, e.g., the productivity and the abstinence, or the productivity and the labor, or the productivity and the exploitation. The criticism of these explanations is that the combinations are purely artificial, the result being no new theory, but merely a conglomeration of inconsistent ideas. The authors of these combinations were unconscious of their inconsistencies, and are, perhaps, rather to be criticized for not attempting a serious explanation of interest. They saw truth in these various ideas and used each one in connections in which it seemed appropriate, but failed to see the inconsistency of connecting them all with the explanation of interest.

Henry George's theory is in substance the same as that of Turgot, who explained interest by the fact that capital can be employed in the

²⁶ *Ibid.*, p. 387.

²⁷ *Ibid.*, p. 389.

purchase of land which produces a surplus and that the capitalist will not, therefore, consent to use it otherwise unless he receives as much income from such use as he would from its employment in agriculture. Henry George puts his theory as follows ²⁸:

"I am inclined to think that if all wealth consisted of such things as planes, and all production was such as that of carpenters—that is to say, if wealth consisted but of the inert matter of the universe, and production of working up this inert matter into different shapes—that interest would be but the robbery of industry, and could not long exist. . . . But all wealth is not of the nature of planes or planks, or money, nor is all production merely the turning into other things of the inert matter of the universe. It is true that if I put away money it will not increase. But suppose instead I put away wine. At the end of a year I will have an increased value, for the wine will have improved in quality. Or suppose that in a country adapted to them I set out bees; at the end of a year I will have more swarms of bees, and the honey which they have made. Or supposing, where there is a range, I turn out sheep, or hogs, or cattle; at the end of the year I will, upon the average, also have an increase. Now what gives the increase in these cases is something which, though it generally requires labour to utilise it, is yet distinct and separable from labour—the active power of nature; the principle of growth, of reproduction, which everywhere characterises all the forms of that mysterious thing or condition which we call life. And it seems to me that it is this that is the cause of interest, or the increase of capital over and above that due to labour."

This differs from Turgot's theory only in the fact "that Turgot places the source of the increment of value quite outside of capital, in rent-bearing land, while George seeks it inside the sphere of capital, in certain fruitful kinds of goods."²⁹ The criticism passed on Turgot was that he "left unexplained how it is possible to purchase for a relatively small sum of capital, land which yields successively an infinite sum of rent, and to secure the advantage of an enduring fructification for unfruitful capital. With George, on the other hand, it seems to need no proof that unfruitful wealth is exchanged in equal ratio with fruitful. For since the latter can be produced in any quantity at will, the possibility of increasing the supply of such goods will not permit of their enjoying a higher level of price than the unfruitful goods that cost as much to produce."³⁰

²⁸ *Geschichte und Kritik*, p. 414.

²⁹ *Ibid.*, p. 416.

³⁰ *Ibid.*, pp. 416, 417.

He finds George's theory open to two objections. First, he "repeats in somewhat altered form the old mistake of the physiocrats, who would not allow that nature coöperates in the work of production except in one single branch of it, agriculture"; and second, "he has not explained that prior phenomenon of interest by which he seeks to explain all the others. He says all kinds of goods must bear interest because they can be exchanged for seed corn, cattle, or wine, and these bear interest. But why do these bear interest?"

"Many a reader will perhaps think, at the first glance, as George himself evidently thinks, that it is self-evident. It is evident that the ten grains of wheat, into which the one grain has multiplied itself, are worth more than the one grain of wheat that was sown; that the grown-up cow is worth more than the calf out of which it grew. Only it would be well to consider that it is not a matter of ten grains simply growing out of one grain. The action of cultivated land, and a certain expenditure of labour, have had a share in it. And that ten grains are worth more than one grain + the action of the ground and + the labour expended, is obviously not self-evident. Just as little is it simply self-evident that the cow is worth more than the calf + the fodder which it has consumed during its growth + the labour which its rearing demanded. And yet it is only under these conditions that interest can fall to the share of the grain of wheat, or to the calf."³¹

H. THE NATURE, ORIGIN, AND FUNCTIONS OF CAPITAL

After clearing the ground by his criticisms of existing theories, Böhm-Bawerk introduces the development of his own explanation of interest by a discussion of the nature, origin, and functions of capital and an analysis of the processes of production. Accepting substantially Adam Smith's conception of capital as "a group of products which serve as means to the acquisition of goods" and, as a subdivision, a smaller group characterized as "products destined to serve towards further production," he described the functions in production of labor and capital respectively. The former is characterized as that of "completing" and "assisting" natural processes by "putting objects in motion" and dictating the "where" and the "how" and the "when" of the operation of materials and forces," insisting that "the origin of goods remains, *purely a natural process*, . . . not disturbed by man but completed . . . by apt intervention of his own natural powers."

³¹ *Ibid.*, pp. 417 and 418.

In this work of manipulating natural materials and forces man investigates "the causal relations of things," "the natural conditions under which the desired goods come into existence" and learns "where human force can be applied with advantage and where not" and how nature can be divided against herself, one natural force being set against another or made to coöperate with another.

In this latter process man has learned to use what Böhm-Bawerk calls "round-a-bout" processes, that is processes in which, instead of putting forth labor "just before the goal is reached," it is put forth "in such a way that it . . . completes the circle of conditions necessary for the emergence of the desired good, . . . by associating with the more remote causes of the good, with the object of obtaining, not the desired good itself, but a proximate cause of the good; which cause, again, must be associated with other suitable materials and processes, till, finally,—perhaps through a considerable number of intermediate members,—the finished good, the instrument of human satisfaction is obtained." As an illustration Böhm-Bawerk contrasts the "direct" and the "round-a-bout" methods of supplying the resident of a hut with water from a remote spring. By the direct method, each time water is wanted he must go to the spring and use the water on the spot; by the "round-a-bout" method he may fell trees of suitable size, gouge out grooves in them, lay them end to end from the spring to the hut, construct a trough in the hut as a receiver, and thus conduct a continuous stream of water suitable for use at the hut at any time and in any amount desired. Previous to all this—and this is also a necessary part of the "round-a-bout" process—he must gather from natural sources the raw materials and construct the tools and implements required for felling and gouging the trees and manufacturing the trough.

According to Böhm-Bawerk, characteristic features of "round-a-bout" as contrasted with "direct" processes of production are (1) that they are time consuming; (2) that they are more productive; and sometimes (3) that they are the only ones possible. That they require more time than direct processes is obvious, but that they should necessarily be more productive is, perhaps, not obvious; however, according to Böhm-Bawerk, it "is the experience of practical life" and "of all the technique of production," experience which is at least partially explained by the fact that "every extension of the round-a-bout way means an addition to the natural powers which enter into the service of man, and the shifting of some portion of the burden of production

from the scarce and costly labour of human beings to the prodigal powers of nature."³²

Böhm-Bawerk also maintains that the increased productiveness of "round-a-bout" processes is subject to the law of decreasing returns, i.e., that "as the process . . . is lengthened the amount of the product, as a rule, increases in smaller proportion," a proposition also based, he said, upon experience.³³

In the "round-a-bout" processes of production are brought into existence goods "destined to serve towards further production," that is, capital, and Böhm-Bawerk's analysis of these processes enables him to answer questions regarding the origin, functions, and nature of capital which have troubled economists and aroused controversy—such questions, for example, as the relation of saving to capital and the exact sense, if any, in which capital can be said to be productive.

In regard to saving, which he defines, as Senior did, as the devotion of productive powers to *remote* instead of *immediate* ends, he shows that it is not alone responsible for the origin of capital, as many economists have claimed,³⁴ but that it must be associated with production before capital can come into existence; and that in most cases it is not capital which is saved but "productive powers," which, when transferred from the service of *immediate* to *remote* ends in the "round-a-bout" processes of production, bring into existence the "intermediate goods" which are called capital. Not only does capital *originate* in this way, but its amount is *maintained and increased* in the same manner. "To retain capital in existence, man must make over, and devote to the service of the future, at least so much of the productive powers of the current period as he has consumed, during the current period, of the produce of former productive powers" and "if an increase of capital is to become possible, obviously a still greater proportion of the current productive powers must be withdrawn from the consumption of the present, and transferred to the service of the future."³⁵

In what sense then may capital be said to be productive? In its origin it is obviously an effect and not a cause. The labor and natural materials and forces which are withdrawn from the service of the present and devoted to that of the future are the real causes both of the

³² *Positive Theory of Capital*, Smart's translation (London. Macmillan & Co., Ltd., 1891), pp. 20, 21, 22.

³³ *Ibid.*, pp. 84, 86.

³⁴ *Ibid.*, p. 100 note.

³⁵ *Ibid.*, p. 104.

capital and of the goods which come into existence through its mediation and, consequently, the real productive powers; but, as Böhm-Bawerk shows,⁸⁶ capital is "an effective *intermediate* [*italics mine*] cause of the consummation of this profitable round-a-bout process," since it is "a store of useful natural powers, the working of which helps to bring to a successful issue the round-a-bout process in the course of which the piece of capital has come into existence. I say intermediate cause, not 'cause.' Capital gives no immediate impulse; it only transmits an impulse given by original production powers, just as one billiard ball transmits motion to another."

"Capital is also the indirect cause of other profitable round-a-bout ways of production being entered upon—other, that is, than those in the course of which it itself has come into existence. When a people possesses much capital not only can it successfully complete those processes in the course of which the capital presently existing has come into being, but it can also adopt other and new methods. For the stock of capital in hand (which, essentially, is nothing else than an aggregate of consumption goods in a transition state) throws off every year a certain quantity of its constituents, which have just completed their transition state and become finished goods, and places them at the disposal of the current economic period for purposes of immediate consumption. In this way the greater the stock of capital, the larger is the share taken by the productive powers of the past in providing means of consumption for the present, and the less are the new productive powers of the present drawn on for the present. Thus a larger proportion of these current powers is free for the service of the future, that is, for investment in more or less far-reaching processes of production."

This analysis led Böhm-Bawerk to answer in the negative "the much disputed question, whether any independent productive power is inherent in capital; or, to put the question in its usual form, whether capital is a third and independent factor in production along side of labour and nature." "Capital," he concluded, "is an intermediate product of nature and labour, nothing more. Its own origin, its existence, its subsequent action, are nothing but stages in the continuous working of the true elements, nature and labour. They and they alone do everything from beginning to end in bringing consumption goods into existence. The only distinction is that sometimes they do it all at once, sometimes by several stages. In the latter case the completion

⁸⁶ *Positive Theory of Capital*, pp. 92-96.

of each stage is marked outwardly by the appearance of a fore-product, and capital has emerged."

In an interesting chapter entitled "Formation of Capital in a Community" Böhm-Bawerk represents the process by a series of concentric circles, the outer one of which represents goods that will be ready for final consumption after a one-year production process, the next, goods that will be ready for consumption after a two-year production process, etc., and notes³⁷: that the quantity of capital or intermediate goods grows smaller as the distance from the goal, consumption goods, increases; that "the ripening of intermediate products into consumption goods demands a steady addition of current productive powers"; and, that the application of these powers at different points produces different results such as, for example, an increase or a decrease in the quantity of goods available for immediate consumption, an increase or a decrease in the present stock of capital, or a lengthening or a shortening of the "round-a-bout" process. He also shows that, in society as at present organized, "It is not the undertakers who decide the direction of national production, but the consumers, the 'public.' All depends on the effective desire they exert by means of their income" which in the long run is "identical with the return of production. . . . If every individual in the community were to consume exactly his year's income in the form of consumption goods, there would arise a demand for consumption goods which, through the agency of prices, would induce the undertakers so to regulate production, that, in each year, the return of a whole year's circle of productive powers would take the form of consumption goods. . . . If, on the other hand, each individual consumes, on the average, only three-quarters of his income, and saves the rest, obviously the wish to buy, and the demand for consumption goods will fall" and the undertakers will provide that only three-quarters of the goods in the more remote circles of production be transformed into consumption goods, the remainder remaining as capital goods.

"We see, therefore, as a fact, an intimate connection between saving and formation of capital. If no individual saves, the people, as a whole, cannot accumulate capital, because the great consumption of consumption goods forces the producers, by the impulse of prices, so to employ the productive powers that, every year, the produce of a whole year's endowment is demanded and used up in the shape of consumption goods, and no productive powers are left free for the increasing of

³⁷ *Ibid.*, pp. 109-116.

capital. But if individuals save, the altered demand, again through the impulse of prices, compels the undertakers to dispose of the productive powers differently; fewer powers are put each year, at the service of the present, and thereby is increased the amount of those productive powers whose produce will be found in suspense as intermediate products; in other words, the capital will be increased with a view to an increased consumption in the future."

I. BÖHM-BAWERK'S CONTRIBUTIONS TO THE THEORY OF VALUE

Since interest is a phenomenon connected with the valuation of capital, Böhm-Bawerk next discusses the subject of value by way of introduction to the special phase of it with which he is primarily concerned. Here he follows the marginal utility line of reasoning, putting in his own way, however, the doctrine of complementary and cost goods and differing in some particulars with Menger and Von Wieser.

In his treatment of complementary goods he considers three possible cases.³⁸ First, one in which "none of the members admits of any use other than the joint use" and in which "no one member which co-operates towards the joint utility can be replaced"; second, that in which "the individual members of the group can afford another, though a less, utility, outside of their joint employment"; and third, that in which "some individual members of the group are not only employed for other purposes, but are, at the same time, replaceable by other goods of the same kind." In the first case, that, for example, of one glove of a pair, "the single member has the full total value of the group," since the loss of it, for example one glove, means the loss of "the whole value of the pair." In the second case, "the value of the single member does not lie between everything and nothing, but between the amount of the marginal utility which it is capable of affording in isolation as a minimum and the amount of the joint marginal utility, after deducting the isolated marginal utility of the other members, as maximum." In the third case, for instance that of "building ground, bricks, beams, labour," etc., "the replaceable members, even if they are needed as complements, can never obtain any higher than their 'substitution value,' i.e., 'the value conferred by the utility in those branches of employment from which the replacing goods are obtained.'"

Böhm-Bawerk shows that the theory of the valuation of complementary goods is the key to the explanation of the distribution of wealth

³⁸ *Positive Theory of Capital*, pp. 171-173.

in the present state of society, labor, land, and capital being merely "three complementary factors of production." By "showing how much of the joint product may economically be considered as due to each of these, and what share of the total value may, accordingly, be assigned to each of them," this theory "lays down, at the same time, the most decisive basis for determining the amount of remuneration which each of three factors obtains." In the cases of labor and land it does this "quite directly," but in the case of capital it explains only "the gross remuneration" for its coöperation, not what "remains over after deducting from the gross remuneration the value of the worn-out capital," namely interest.

Böhm-Bawerk's treatment of costs deserves attention not because he contributed anything new to the theory of the subject but because of the clearness and completeness with which he has traced what he calls the "concatenation of value, price and costs."

"The formation of value and price," he says,³⁹ "takes its start from the subjective valuations put upon finished products by their consumers. These valuations determine the demand for those products. As supply, over against this demand, stand, in the first instance, the stocks of finished commodities held by producers. The point of intersection of the two-sided valuations, the valuation of the marginal pairs, determines the price of each kind of product separately. Thus, for instance, the price of iron nails is determined by the relation of supply and demand for nails. The price of rails, by the relation of supply and demand for rails; and, similarly, the price of every other product made out of the productive good iron—such as spades, plough-shares, hammers, sheet iron, boilers, machines, etc.—is determined by the relation between the supply and demand which obtains for these special kinds of products."

The "causal connection which has ended in this price . . . runs in the clearest possible way, in an unbroken chain from value and price of products to value and price of costs—from iron wares to raw iron, and not conversely. The links in the chain are these. The valuation which consumers subjectively put upon iron products forms the first link. This helps, next, to determine the figures of the valuation—the money price at which consumers can take part in the demand for iron products. These prices, then, determine, in methods with which we are now familiar, the resultant price of iron products in the market for such products. This resultant price, again, indicates to the pro-

³⁹ *Ibid.*, p. 224.

ducers the [exchange] valuation which they in turn may attach to the productive material iron, and thus the figure at which they may enter the market as buyers of iron. From their figures, finally, results the market price of iron."

"But still another and very important connection may be gathered from all this. It is that here we have simply the great law of marginal utility fulfilling itself. According to that law the available stock of goods is, successively, conducted into the most remunerative employments—put to the most advantageous uses—and the last use to which the goods are put determines their value. In any individual economy the most remunerative uses are seen to be those which express the most urgent subjective wants, and the value which emerges, as result of these individual relations, is purely personal subjective value. In the more extended sphere of a market, on the other hand, everything is referred, no longer directly to subjective wants, but to those wants as mediated by money—money being, as it were, the neutral common denominator for wants and feelings of various subjects which are not immediately commensurable. Here emerge, as the most remunerative employments, not those which express the wants absolutely most urgent, but those which are represented by the highest money valuation; that is, the best paying employments; and the value which results is objective exchange value."⁴⁰

The perfect working of the cost principle, even within the sphere in which it operates, is prevented by "friction," i.e., hindrances "great or small, permanent or temporary to the due investment of the original productive powers in the employments and forms of consumption which are the most remunerative at the time," and by the "lapse of time," "the weeks, months, years which stretch between the inception of the original productive powers, and the presentation of their finished and final products." It is this latter circumstance which gives rise to the phenomena of interest.

J. THE VALUATION OF FUTURE GOODS

Bohm-Bawerk has shown that capital or capital goods are the result of the adoption of "round-a-bout" methods which push forward into the future the consumption goods for the production of which in larger quantities these methods are employed. Capital goods, therefore, so far as the satisfaction of wants is concerned, are future goods and on that account suffer a discount in valuation, the reason for

⁴⁰ *Positive Theory of Capital*, pp. 226, 227.

which Böhm-Bawerk explains on three grounds,⁴¹ namely, (1) differences in want and provision for want between the present and the future; (2) underestimation of the future; and (3) the "technical superiority" of present goods.

Regarding differences in want and provision for want between the present and the future, he considers three cases: first, those of the needy whose present wants as compared to their means of satisfying them are so pressing that they would gladly give a much larger amount of goods in the future for those requisite at the moment; secondly, "all kinds of beginners who have no means, such as young lawyers, artists, officials, budding doctors, men going into business" [who] "are only too ready, in return for a sum of present goods which assists them to start in the vocation they have chosen, and acts as foundation of their economical existence, to promise a considerably larger sum on the condition that they do not require to pay it until they are in receipt of a decent income"; third, those persons "who are comparatively well off at the moment, and who are likely to be worse off in the future." In such cases present goods are equally as valuable as future, since the machinery of modern society makes it possible to make them available in the future and they may be more valuable on account of possible needs, not known at the time, but which may appear at any time in the future. A present good is available at any time in the future and may thus be used to satisfy any unforeseen want no matter when it may appear.

"Only in rare and exceptional cases are future goods as valuable or more valuable than present, for example, goods subject to rapid deterioration or decay, such as ice, fruit, and the like."⁴² Böhm-Bawerk concludes⁴³:

"We may, then, draw up the balance-sheet which shows the influence of the different circumstances of Want and its Provision in present and future as follows. A great many persons who are not so well provided for in the present as they expect to be in the future, set a considerably higher value on present goods than on future. A great many persons who are better provided for in the present than they expect to be in the future, but who have the chance of preserving present goods for the service of the future, and, moreover, of using them as a reserve fund for anything that may turn up in the meantime, value present goods either at the same figure as

⁴¹ *Ibid.*, pp. 249, 250.

⁴² *Ibid.*, pp. 251, 252.

⁴³ *Ibid.*, p. 252.

future, or a little higher. It is only in a fractional minority of cases, where communication between present and future is hindered or threatened by peculiar circumstances, that present goods have, for their owners, a lower subjective use value than future. This being the state of things, even if there was nothing else co-operating with this difference of want and provision in present and future, the resultant of the subjective valuations, which determines the objective exchange value, would obviously be such that present goods must maintain a proportionate advantage, a proportionate agio over future. But, besides this, there are other co-operating circumstances which work, even more distinctly, in the same direction."

One of these coöperating circumstances mentioned in the passage just quoted is the habit of underestimating the future which characterizes most people, a habit the explanation of which Bohm-Bawerk finds in "the incompleteness of the imaginations we form to ourselves of our future wants," in the weakness of our wills which results in our inability always to do what we perfectly well know it is in our interest to do, and in "the shortness and uncertainty of life." The first two of these causes probably operate to a greater or less degree upon all people, and the third operates quite universally when the future in question is separated from us by a long period; moreover, as we advance in years, it affects us even when the distance between the present and the future is relatively short. Indirectly, however, through the mechanism of the market, the effect of the undervaluation of the more or less distant future spreads itself over the intervening period. "Equalizing tendencies, and transactions" which may be compared with "stock exchange arbitrage, spread the differences of value, which obtain as regards long periods, uniformly over the intermediate period."

This phenomenon, the underestimation of the future, says Bohm-Bawerk,⁴⁴ substantially contributes "to strengthen the efficiency of the first factor in the undervaluation of future goods, the difference in the provision of goods for present and future. All persons who are worse off in the present than they expect to be in the future—persons to whom, therefore, the true marginal utility of a future good is already less than the marginal utility of a similar present good,—are led by this second factor to put the future marginal utility still lower than it really is, and this increases the difference in value to the further prejudice of future goods. . . . In the same way those per-

⁴⁴ *Positive Theory of Capital*, pp. 258, 259.

sons who may be supposed to be in approximately the same circumstances in present and future and would, other things being equal, value present and future goods at approximately the same figure will fall under the category of those who value present goods more highly than future. This second factor, then, increases both the number and the intensity of the differences in valuation to the prejudice of future goods, and, naturally, in the market where present goods are exchanged against future, this must make the resultant exchange value more unfavourable to the latter. The agio on present goods moves upwards."

A third reason why present goods are valued more highly than future Bohm-Bawerk finds in what he calls their "technical superiority." This superiority consists in the fact that present goods make possible "round-a-bout" methods of production which, he has previously shown, are more remunerative than direct ones. A certain amount of labor, for example, available now is worth more than the same amount available at any future period because it makes possible a longer and consequently more remunerative productive process.⁴⁵

Of the three causes for the undervaluation of future goods, "the difference in the circumstances of provision between present and future," "the underestimate, due to perspective, of future advantages and future goods," and "the greater fruitfulness of lengthy methods of production," the first two operate "cumulatively" and the third "alternatively." Bohm-Bawerk explains this fact as follows⁴⁶:

"The superiority of present goods, as making round-a-bout and more fruitful ways of production possible, cannot be increased by the perspective undervaluation of future goods, because the utility got from lengthy processes is itself a future utility, to which the perspective undervaluation applies as much as it applies to the future goods with which the present goods are compared.

"As little can the third factor be strengthened by the first factor, namely, the consideration of a greater present want. For, evidently, employing a good as a great future productive utility, and employing it to satisfy an immediate pressing want, are mutually exclusive employments; and it is clear that a good, which can only be employed in the one way or the other cannot obtain a cumulative advantage from the two together."

⁴⁵ *Ibid.*, pp. 262 and 263, there is an illustration and elaboration of this point.

⁴⁶ *Ibid.*, p. 274.

K. THE FORMS OF INTEREST

The phenomena of interest appear in three forms, loan interest, the "profit of undertaking," and income from durable goods, "usually called Hire or Lease, and in one case Rent." In the loan the exchange of present for future goods is apparent. One hundred dollars of present money is exchanged against, for example, one hundred and six dollars of money to be paid one year hence.

In the business of the *entrepreneur* the same process of exchange of present against future goods takes place, but in a form somewhat concealed. It is his business to "buy goods of remoter rank, such as raw materials, tools, machines, the use of land, and, above all, labour, and, by the various processes of production, transform them into goods of first rank, finished products ready for consumption."⁴⁷ These goods "of remoter rank, although, materially, present commodities, are, economically, *future* commodities," since they are incapable of satisfying human wants until they have been transformed into consumers' goods which can be made available only after the lapse of time, i.e., in the future. In reality, therefore, the undertaker buys future goods. He pays for them in money which can be exchanged for present goods. Experience shows that "independently of compensation for [his] personal cooperation in the work of production as a leader of industry, head worker, etc.," he obtains "a gain approximately proportioned to the amount of capital invested in his business," i.e., interest.

In the case of durable production goods a complication⁴⁸ arises from the fact that they "contribute various portions of their useful content to the making of various final products which . . . arrive at maturity at various points of time" in the future. In the valuation of such goods each of their services is treated by Böhm-Bawerk as a separate good, subject to a discount determined by its distance from its final goal; and the goods as a whole are considered as a bundle of such services equal in value to the sum total of the value of these services.

The phenomena of interest and depreciation in the case of such goods are illustrated by Böhm-Bawerk in the following passage,⁴⁹ the

⁴⁷ *Positive Theory of Capital*, p. 299.

⁴⁸ *Ibid.*, p. 305.

⁴⁹ *Ibid.*, pp. 344-346.

case assumed being that of a good capable of rendering service for six years:

"At the beginning of the first year of its use the good, as bearer of six annual services, was worth in present value $100 + 95.23 + 90.70 + 86.38 + 82.27 + 78.35$; that is 532.93. At the end of the first year, as now capable of five annual services of the present value of $100 + 95.23 + 90.70 + 86.38 + 82.27$, it is worth 454.58. The loss in value is, therefore, 78.35, which is exactly the same as the former most remote service was. But since the sum received from the current year's service—the value of the service sold and now deducted—amounted to 100, there remains a net gain of 21.65, which is exactly 5% of 432.93, the sum which the goods became worth immediately on deduction of the first service realized, as one might say, to account.

"Similarly, in the second year's use, the owner again realizes the service now become present and worth 100. This comes off the value of the parent good. But the succeeding service, which before had become worth 95.23, now arrives at the full value of 100; that succeeding it, becomes worth 95.23, and so on. Only the last service, that originally worth 82.27, finds nothing to replace it. At the end of the second year's use, then, the good, as capable of four remaining annual services of the individual values of $100 + 95.23 + 90.70 + 86.38$, is worth 372.31. As against the value of 454.58 which it had at the beginning of the year, it has suffered a loss of value of 82.27, which is equal to the value of what was the last service; and as against the receipt of 100, it returns 17.53 net, the interest on the somewhat reduced capital that remains. And thus it goes on from year to year, the gross return always remaining the same (because by hypothesis the amounts of service remain unchanged in technical quality), the quota for wear and tear always increasing (because the marginal service, that which determines the loss of value, stands nearer to the present, and so to the full present value), and the net interest always decreasing (in correspondence with the decrease of the capital, owing to wear and tear, on which interest has to be paid), till finally the good has entirely given up its useful content and is, as we say, consumed.

"Put in general terms, then, we get the following very simple explanation of the phenomenon of interest on durable goods. The owner of a durable good can always realize the full [higher] value of the then present utility, and this represents the 'gross return' of the good, its 'gross interest.' He loses, on the other hand, on account of the steady advance of the more remote services towards the present, only the smaller value of the last service then inherent in the good. This smaller value determines the amount of the 'wear and tear,' and thus there is always a difference between gross interest and the amount of wear and tear, which difference forms his net

profit or net interest. The cause, then, to which net interest owes its existence, is nothing else than an increase of value of the future services—services which were previously of less value, but during the period of the good's use have pressed forward into or towards the present."

An interesting application of the principle illustrated in the above passage appears when Bohm-Bawerk considers the cases of goods of long service and finally of land, capable of rendering service for an infinite period. The longer the period of service the more remote, and the greater the discount of, the service, the value of which determines the depreciation of the good, and consequently the smaller the annual depreciation of the good. In the case of land, the service, the value of which determines depreciation, is so remote (infinitely far away) that it is practically valueless, and the depreciation of land is, therefore, nil. According to Bohm-Bawerk,⁵⁰ "This is the ultimate reason why rent of land appears as a net income, and here first is the solution of the problem of rent traced to its real issue. The old rent theory gave only a preliminary and partial answer, and, strangely enough, had not the slightest suspicion that its tentative solutions had never come near the heart of the problem. All preceding attempts, from Ricardo downwards, exhausted themselves in more or less successfully pointing out that the annual uses of land have an economic value, or yield an economic return, and why they do so. But the yield of such services is in itself, first of all, a gross return. That the owner gets a net return, a net income, has nothing to do with fruitfulness, situation, kind of ground, or any such thing, but simply with the lower value put upon future goods, and the determination of the present value of the land in conformity with that."

L. THE MARKETS FOR "MEANS OF PRODUCTION"

Means of production are exchanged for "final and finished present goods" on the labor market, the market for uses of land, and the market for "intermediate products such as raw materials, tools, machines, factories, etc."

In the labor market the supply is forthcoming from laborers who are unable to engage in any productive process except a direct, or a relatively short "round-a-bout," one and who in consequence are willing to sell their services for any wage in excess of what the production process available to them will yield. The demand comes from

⁵⁰ *Positive Theory of Capital*, p. 354.

capitalists who can either use their capital to employ their own labor in a relatively long and consequently more productive "round-a-bout" process or, if they do not want to labor themselves or cannot themselves labor, can loan their capital to others who can and will use it in such processes.

The capitalist who has the option of using his capital either in employing himself in a "round-a-bout" process or of hiring laborers with his capital finds that by employing himself exclusively he can engage in twice as long a productive process and consequently in a more remunerative one than would be possible if he should hire a laborer to work with him, since in the latter case he must supply subsistence to two instead of one. He will, therefore, be willing to hire the laborer only in case what is left after paying him will be equal to or greater than his gains would be if he employed himself in a doubly long productive process.

In cases in which the capitalist does not enjoy the option of employing himself alone or of hiring a helper, he has the privilege of lending his capital to those who do enjoy that option. The results are, therefore, the same. The demand of the capitalist for labor ceases at the point where the wages that must be paid will reduce his profit below what it would be if he employed a longer productive process in connection with his own labor alone. The wages of labor will, therefore, be fixed between that point as a maximum and the point at which the laborer can earn as much or more by using his own labor in a direct or a relatively short productive process.

The market for labor is but one aspect of the "general subsistence market," as Böhm-Bawerk calls it, the other being that of intermediate products. In this market the entire wealth of society, except that consumed by the owners themselves or spent "in furnishing themselves with the necessary maintenance during their production period" and land, is advanced as subsistence during the current productive period. This fact is obscured by the form of a large part of this wealth, which is that of tools, machines, raw materials, etc., instead of finished consumers' goods. But since this subsistence is not all needed at the beginning of the productive period but in instalments regularly succeeding each other, and since these intermediate products regularly ripen into consumers' goods in instalments suited to the need of the community, it is evident that the entire amount may be viewed as and really is the subsistence fund for the period.

Over against this fund as supply stand as demand (1) "an enormous

number of wage-earners who cannot employ their labour remuneratively working on their own account, and are accordingly, as a body, inclined and ready to sell the future product of their labour for a considerably less amount of present goods"; (2) "a number of independent producers, themselves working, who by an advance of present goods are put in a position to prolong their process, and thus increase the productiveness of their personal labor"; and (3) "a small number of persons who, on account of urgent personal needs, seek credit for purposes of consumption, and are also ready to pay an agio for present goods."⁵¹

This demand always exceeds the supply and an agio on the present goods always appears for the following reason⁵²:

"The supply, even in the richest nation, is limited by the amount of the people's wealth at the moment. The demand, on the other hand, is practically infinite; it continues at least so long as the return to production goes on increasing with the extension of the production process, and that is a limit which, even in the richest nation, lies far beyond the amount of wealth possessed at the moment."

"Where a people, as in the case of Roscher's poor fisher-folk, live from hand to mouth, it goes without saying that they will be eager to acquire the first hardly saved stocks which allow them to make boats and nets, and their exchanges will be made with an agio against future goods. But among comfortably-off and wealthy people the position is different, not in kind, but in degree. If the stock of wealth be sufficient to maintain the population during an average one year's production period, every one will wish to engage in a two years' production process with its greater productiveness, and, the stock of wealth not being sufficient to advance subsistence to everybody for two years, there will be, as before, bidding against each other; the circle of suitors will be weeded out; and the agio on present goods will appear. Nor does it make any difference if the community's wealth is sufficient for an average of five or ten years' production period. Since the provision for human wants would be still more abundant if, instead of five or ten years, six or eleven years were the average periods, men will always wish to embark on these more fruitful methods, will compete to obtain the subsistence that is not sufficient for all, and will thereby inevitably call forth an agio for present goods. . . . Interest and Agio must appear."

⁵¹ *Positive Theory of Capital*, pp. 331, 332.

⁵² *Ibid.*, pp. 332, 333.

M. THE RATE OF INTEREST

The valuation of future goods varies widely among different individuals at the same time and this divergence makes exchange economically possible. The principles of exchange in general operate here and are explained by Bohm-Bawerk in his book on *Price*. According to these principles price is "fixed somewhere between the value of the present good to its owner as under limit and its value to the suitor as upper limit. If, for instance, £100 present money are worth to their owner exactly as much as £100 of next year's money, while to the suitor they are worth, on subjective grounds (say, on account of temporarily pressing circumstances), as much as £200 of next year's money, the price of £100 present money will be fixed somewhere between £100 and £200 of next year's money, and the agio at something between nothing and 100%. The precise figure that is fixed, in the individual case, within these wide limits, depends on the skill and 'staying power' displayed by both parties in conducting the negotiations. As a rule, the owner of present goods will be in a position of advantage, because he can do without the exchange and yet suffer no loss, while the suitor is often driven to pay any price for present goods. Hence the familiar cases where, in the absence of competition, usuriously high rates of 50%, 100%, and even 200% and 300%, are extorted."⁵³

For the reasons already explained, the relation between demand and supply is always such as to give an agio to present goods. There still remains for explanation what determines the amount of this agio and the fluctuations in its amount. Bohm-Bawerk supplies this by analyzing the productive loan and in particular that form of it represented by the labor market. Assuming, for the sake of simplifying the problem, that this is the only market, the entire fund of capital will bid against the entire fund of labor, and the total amounts on both sides will be employed because it is to the advantage of both laborers and capitalists that they should be. The productiveness of this employment will depend upon the length of the process, which, however, is not independent of the rate of wages paid. A fund of \$1,500,000,000 employing 10,000,000 laborers, for example, can supply subsistence for a ten-year period, if the wage is \$30 per man, for a five-year period if the wage is \$60 per man, and for a six-year period

⁵³ *Ibid.*, pp. 375 and 376.

if the wage is \$50 per man. Whatever the wage may be, however, the capitalist is free to employ a smaller number over a longer period or a larger number over a shorter period and he will adopt that period which will bring him the largest returns.⁵⁴ If at a given wage, say £60, the most profitable period for the capitalist is such that not all the labor is employed, competition between laborers will force down the wage to the point where all will be employed in a process the length of which is most remunerative for the capitalist at that wage. If at the given wage, all the labor being employed in the process most productive for the capitalist at that wage, some of the capital remains unemployed, competition between capitalists will force wages up to the point where all capital will be employed in the most productive process at the new wage.

Thus an equilibrium tends to be established between the rate of wages, the length of the period of production, and the volume of capital, and the magnitude of the interest rate is fixed by the productiveness of the process thus determined. If any one or more of these factors change, a new equilibrium is fixed to correspond with the change. Thus, if the number of laborers increases or the amount of capital decreases or the productiveness of the process increases, the rate of interest will rise, and under the opposite conditions it will fall. As Böhm-Bawerk puts it ⁵⁵: "In a community interest will be high in proportion as the national subsistence fund is low, as the number of labourers employed by the same is great, and as the surplus returns connected with any further extension of the production period continue high. Conversely, interest will be low the greater the subsistence fund, the fewer the labourers, and the quicker the fall of the surplus returns."

Making all necessary corrections to the assumption made by Böhm-Bawerk, that the wage-worker is the only suitor for the national subsistence fund, namely, introducing into the calculation the suitors for consumption credit and landowners, the principles revealed by the above analysis remain unchanged. These other competitors simply decrease the amount of the national subsistence fund available for the support of productive labor and to that extent decrease the rate of wages and increase the rate of interest.

⁵⁴ For an illustration and demonstration of the manner in which this period is determined, see *Positive Theory of Capital*, pp. 388 and 389.

⁵⁵ *Ibid.*, p. 401.

CHAPTER XXIII

SOME APPLICATIONS AND RESTATEMENTS OF AUSTRIAN DOCTRINE

No substantial addition to the body of doctrine expounded in the preceding chapters has been made, but certain applications and re-statements of these theories, not heretofore discussed, are noteworthy.

A. PUBLIC FINANCE AND PUBLIC ADMINISTRATION

In 1887 Emil Sax published his *Grundlegung der theoretische Staatswirthschaft*, in which he made application of the new doctrine of value to collective economies, and in particular to the economy of the state; and in Book VI of his *Natürliche Wert* Von Wieser discussed the same topic.

Hitherto, said Sax, the economy of the state, at any rate those phases of it comprehended under the terms *public finance* and *public administration*, had been treated, not as a part of the science of political economy, but as one of its applications. It had, therefore, lacked a theoretical foundation. This defect, he said, was or might be corrected by the Austrian doctrine.

He alleged that the most fundamental phenomena of economic life, such as needs, goods, labor, value, costs, product, income, property, etc., are common to both private and public economies. In the latter these phenomena are contemplated from a special point of view and are modified in certain particulars. The needs of the state, for example, are merely the needs of the individuals who compose it satisfied through the agency of other persons selected for that purpose. He refuted the idea that the state should be conceived as a personality interposing itself between the individual and the realization of his life purposes or imposing itself upon him. The state, he said, is merely an abstraction, and it cannot set purposes before itself and feel needs. Only individual men and women can do this.¹

In accordance with this point of view he distinguished two classes

¹ "Der Collectivismus ist auch nur eine Form der Bethätigkeit individueller Wesen und kan ja nicht anderes sein. Insofern sind also alle Collectivbedürfnisse Bedürfnisse der in Collectivismus Personen."—Dr. Emil Sax, *Grundlegung der theoretische Staatswirthschaft* (Wien, 1887), p. 192.

of individual needs, namely those felt by individuals as such and independently of their connection with other individuals and those felt by an individual as a member of a group. Of the former class every individual is conscious, but not every individual is always conscious of the latter, which find expression through the agents of the collectivity (p. 193). To the extent that a person participates in the life of the community, however, he feels the collective side by side with his individual needs. Thus individual and collective needs are interwoven in the conduct of men's lives, the relation between the two being that of coordination (p. 194). These various needs, individual and collective, vary in intensity and in importance and may accordingly be arranged in series and treated in the same manner as individual needs considered by themselves.

Both individual and collective needs are satisfied by goods and labor and through the mechanism of the markets.

The division between collective and individual interests and affairs cannot, therefore, be drawn on the basis of the nature of the wants involved. They are all individual wants. The real basis of the division is other circumstances. For the attainment of certain of his ends the individual needs to enter into such relations with his fellows as are involved in the formation of states. In no other way can certain things be accomplished such, for example, as the warding-off of enemies and protection in a foreign country. "Only a union of people can succeed in guarding a country's peace, and preserving order against crime within its borders. From the general feeling of justice are obtained the weight and power necessary for the laying down of laws which will bind everyone and for the appointing of judges and officers who will make everyone bow before the common law. And thus numerous interests, partly collective, partly the most ordinary general interests of the individual, lead to ever-widening extension of the sphere of the state's activity, wherever the opinion prevails that only the state possesses the power of offering any guarantee of the satisfaction, or the full satisfaction, that is desired."²

"Among the undertakings for which the means and powers of individual citizens suffice, there are very many which must be excluded from the circle of private business because of the impossibility of obtaining any profit out of them" and "many undertakings which lie within the power of a citizen, and which also hold forth to him a promise of gain, are reserved to the state, for the simple reason that

² Von Wieser, *Natural Value*, pp. 222-223.

they would put too much power into the hands of the private undertaker, or assure him too great a gain."³

Since the economy of the state concerns itself with the means for the satisfaction of the wants of individuals, utility and value play a rôle in it as they do in private economies. In the former as in the latter, "the first principle must be to secure the greatest amount of utility, the highest well-being of the citizens," and this must be accomplished by estimates and calculations of returns, costs, and value. The chief differences between the estimates, calculations, and valuations in the two fields is that "between vagueness and definiteness, subjective valuation and exact calculation."⁴

In the case of the state as in that of individuals, "goods obtain their value from the uses to which they are put," and "the correct principle for the appropriation of income to the purposes of the state is therefore simple; it is the universal principle of economical employment, viz. that goods be employed in accordance with their value. If the state should claim too much, it diminishes value, by expending goods for purposes of state economy which would have a higher value if employed in private economy. If it claims too little, value is again diminished—as in this case also the entire importance of the goods is not realized."⁵

One consequence of this principle is that people should contribute different amounts to the support of the state. According to Sax, every individual has his peculiar *Werthstand* growing out of the fact that the relation between his wants and his income is different from that of other men. "The same amount of goods," therefore, "are valued differently, or, what amounts to the same thing, the same amounts of value are expressed in different quantities of goods."⁶

Sax analyzed minutely the different branches of state activity and showed how the principles of economical management, which constitute the center of the Austrian economics, apply in each case and constitute the theoretical bases for the solution of the problems that arise.

B. WICKSTEED'S "COMMON SENSE OF POLITICAL ECONOMY"

One of the most interesting applications of the doctrine of Jevons and the Austrian School was made by Mr. Philip Wicksteed in his

³ *Ibid.*, pp. 223-225.

⁴ *Ibid.*, p. 229.

⁵ *Ibid.*, p. 255.

⁶ *Ibid.*, pp. 235 and 236.

book entitled *The Common Sense of Political Economy*, published in 1910. As this title implies, Mr. Wicksteed attempted to demonstrate the common sense and the wide applicability and usefulness of these doctrines.

As means to this end he abandoned the traditional arrangement of subject-matter and much of traditional terminology and emphasized the identity of the principles of economics with those operative in other spheres of life. Instead of using the old headings—production, exchange, distribution and consumption—he used the following: “Administration of Resources and Choice between Alternatives”; “Price and the Relative Scale”; “Margin, Diminishing Psychic Returns”; “Economic Administration and Its Difficulties”; “Money and Exchange”; “Business and the Economic Nexus”; “Markets”; “Interest, Tools, Land”; “Earnings”; “Distribution”; and “Cost of Production.”

He started with the proposition that the principles of economics are identical with those which regulate our actions in all other branches of life. As he put it, they are the general principles “which regulate our deliberations, our selection between alternatives and our decisions in all branches of life,” applied to the administration of the resources “of an individual, a household, a business, or a State.” Political economy he defined as that branch of economics which is concerned with “the administration . . . of the affairs and resources of a State, regarded as an extended household or community and regulated by a central authority.”⁷

The principles to which he refers are those of “diminishing psychic returns,” “margins,” valuation, etc., understood and expounded in substantially the same manner that Jevons and the Austrians understood and expounded them. His contribution consists in pointing out the “common sense” of these principles and the manner of their operation in domestic, business, and state economy.

He begins with domestic economy as the simplest, and at the same time the most basic. He shows that the mother of a family in the administration of her pecuniary resources and in the utilization of her purchases is guided by the principle of making “everything go as far as it will, or, in other words, serve the most important purpose that it can. She will consider that she has been successful if, in the end, no want which she has left unsatisfied appears, in her deliberate judg-

⁷ Philip H. Wicksteed, *The Common Sense of Political Economy* (London, Macmillan & Co., Ltd., 1910), p. 14.

ment, to have really been more important than 'some other want to which she attended in place of it.'⁸

The administration of pecuniary resources and of the objects upon which they are expended is, however, but one of the branches of domestic administration, and no exception to the others so far as guiding principles are concerned. "It is possible to pay too dear in money for the saving of money, or too dear in thought and energy for the saving in bread, potatoes or cream. Whatever the nature of the alternatives before us, the question of the terms on which they are offered is always relevant. If we secure this, how much of that must we pay for it, or what shall we sacrifice to it? And is it worth it? What alternatives shall we forego? And what would be their value to us?" (Pp. 20 and 21.)

In the market this problem presents itself in terms of money prices. "The price of a thing is an indication of the range of alternatives open to the purchaser, and is a special case of terms on which alternatives are offered to us. We are constantly weighing apparently heterogeneous objects of desire against each other, and selecting between them. All these things that we balance against and compare with each other, whether they can be had for money or not, may ideally be arranged on a scale of relative significance in our minds." (P. 13.)

In making the decisions involved in the administration of resources of every kind, he shows that the familiar doctrines of "margins" and "diminishing psychic returns" are illustrated. "From end to end of life," he says, "the principle runs unchallenged that marginal significance decreases as the volume of satisfaction swells; and that that volume should be largest when marginal values are adjusted to the terms on which alternatives are offered." (Pp. 159 and 160.)

In an interesting chapter entitled "Economical Administration and Its Difficulties," he points out various ways in which the ideal coincidence between marginal significances and market prices is impeded. One is indicated by "the difficulty of keeping all departments of expenditure in connection with each other"; another "by the fact that we cannot always get things in the exact quantities we want them"; a third, by the difficulty of keeping "the balance between expenditure on things we pay for as we use them, like food, and things that we pay for at once and use over a long period, like furniture." He shows that the various systems of hire are means which have been devised for overcoming the latter difficulty and also that of "enjoying the

⁸ *Ibid.*, p. 20.

fraction we want of commodities that cannot be divided" and that "the premium we pay for these advantages is one of the sources of interest." (P. 95.)

In making the transition from "domestic" to "political" economy he explains the nature and functions of money and exchange and the meaning of such phrases as *economic life*, *economic relations*, *economic conditions*, *the economic motive* and *economic forces*. He says:

"Advantageous exchanges can take place whenever the relative significance of any two exchangeable things is marginally different on the scales of any two men in the community, and the exchange itself tends to reduce this difference. Therefore when there is equilibrium the exchangeable things on every man's scale must occupy the same relative positions."

"Exchange may arise incidentally, to correct errors in administration of energies; but complex systems of industry, that avail themselves of the economies of division of labor, contemplate exchange from the first, as an essential part of the machinery of adaptation of means to ends."

"In a society so organized media of exchange and standards of value arise spontaneously, and are regulated by law. The use of gold as a medium and a standard is dependent upon its use as a commodity. The gold prices of commodities, being an expression of their position on the communal scale in relation to gold, may become the expression of their positions relatively to each other, and of the identity of those relative positions on all the individual scales of persons who possess them. But this identity does not extend to things that cannot be exchanged. These may occupy positions differing to any degree both amongst themselves and amongst the items of exchangeable things on the different individual scales. And so may exchangeable things of which a man possesses no stock."

"As the ultimate objects of desire are never amongst the things that enter into the circle of exchange (though never realisable without), the identity of scale is always objective and external, and never vital. Possessions, actual or virtual, are indeed necessary to life, but, as they increase, their marginal significance to life declines, and the danger arises of sacrificing life to them instead of supporting it on them." (Pp. 126, 127.)

According to Wicksteed, the phenomena of exchange constitute the special field of political economy, the function of which is to study the application to those phenomena of the laws of economics, which have a much wider scope. The problems of this science center in the market.

Before taking up the special study of the market, however, he makes some interesting observations on the ideas that lie behind such phrases as *economic life*, *economic relations*, *economic conditions*, *the economic motive*, and *economic forces*. "Economic life," he says, "consists of all

that complex of relations into which we enter with other people, and lend ourselves or our resources to the furtherance of their purposes, as an indirect means of furthering our own" (p. 158). Such relations may be properly described as economic (p. 166). The phrase *economic conditions* connotes "the general command of exchangeable things" enjoyed by the people of a community (p. 162) and "the considerations which determine a change of flow in the economic activities" (p. 169). *Economic forces* means "anything and everything which tends to bring men into economic relations" (p. 168).

An extended discussion of these concepts resulted in the following conclusions.

"(a) That the economic relation is entered into at the prompting of the whole range of human purposes and impulses, and rests in no exclusive or specific way on an egoistic or self-regarding basis.

"(b) That the economic forces and relations have no inherent tendency to redress social wrongs or ally themselves with any ideal system of distributive justice.

"(c) That the hypothesis that the economic relations can be isolated, even if taken only as a first approximation, is too remote from the fact to be admissible, and would be useless and superfluous in any case; and that the economic relation, as well as being naturally allied to other relations in every degree of closeness, has itself a tendency to beget these other relations.

"(d) That it is nevertheless both legitimate and desirable to make an isolated study of the economic relation and the economic forces, though not on the hypothesis that they actually exist or act in isolation." (Pp. 169 and 170.)

The significance of these observations and propositions is indicated by the fact that they involve an abandonment of "all attempts to rule out this or that 'motive' from the consideration of the economist, or indeed to attempt to establish any distinction whatsoever between the ultimate motives by which a man is actuated in business and those by which he is actuated in his domestic or public life" and an abandonment of the "hypothetically simplified psychology of the Economic Man, which figured so largely in the writings of the classical economists and which recent writers take so much trouble to evade or qualify." According to Mr. Wicksteed, "the economic relations constitute a machinery by which men devote their energies to the immediate accomplishment of each other's purposes in order to secure the ultimate accomplishment of their own, irrespective of what these purposes of

their own may be, and therefore irrespective of the egoistic or altruistic nature of the motives which dictate them and which stimulate efforts to accomplish them." (Pp. 4 and 5.)

We turn now to the subject of the market, in which, according to Mr. Wicksteed, the chief phenomena and problems of political economy center, and note first his definition of it, namely, "the machinery by which objective equilibrium in the marginal significance of exchangeable things is secured and maintained in a catallactic society" (p. 212). "Equilibrium" in this definition means the conditions which exist when a commodity in the market "occupies the same place at the margin on the scales of all who possess it, and is higher at the margin on all their scales than on the scales of any one who does not possess it" (*ibid.*). The price "which if at once established would produce equilibrium without oscillations" he calls "the equilibrium price," and this price, he says, "is determined by the quantity of the commodity at command and the composition of the collective scale" (*ibid.*), or "by the place on the communal scale of the lowest of the desires for a unit that are gratified, and these will all of them be higher than any that are not gratified. Hence if there are X units of the commodity the place of the x th unit on the collective scale will determine the equilibrium price" (*ibid.*).

In further elaboration of these points, in connection with his account of how the prices of crops are determined, he says (pp. 216, 217): "The more I possess of any commodity the lower on my relative scale does it stand at the margin; so that if equilibrium amongst the consumers were established at any point on their scales and the growers still had stores in relative excess, and therefore found it to their interest to effect further exchanges, this continued distribution, yet further increasing the supplies of the consumers, would lower the marginal significance of the commodity on all their scales. The more of a commodity there is distributed, then, the lower will be the position on the several personal scales, and therefore on the collective scale, at which equilibrium is finally reached. Thus the amount of the crop and the scale of preferences of the community are the two ultimate considerations which determine the point on the collective scale at which equilibrium will be reached, or what we call the equilibrium price or value of the commodity."

He shows that the collective scale "registers the estimates not only of the buyers but also of the sellers at *reserve prices*," these latter being

equivalent to buyers at those prices, since withholding supplies for a price above the one prevailing at the time has the same effect upon the market as offering to purchase at the reserve price the quantities withheld.

His treatment of the relations of buyers and sellers on the market is unique and especially noteworthy. The usual procedure is to treat them as opponents with rival interests, but he regards them as a homogeneous group and notes that, while to the individual buyer market prices appear to be "phenomena which confront him independently of his own action and which impose upon him the conditions under which he must make his selection between alternatives" (p. 5), as a matter of fact he is by his own action contributing toward the formation of these prices, other buyers, acting on precisely the same principles on which he acts, together with himself ultimately determining what these shall be.

The seller does not determine prices, but "reflects the collective mind of the consumers." Speaking of the typical marketer and the seller's relations to her, he says:

"It is mainly what the others will give that determines what the seller asks of her, and in an infinitesimal degree it is what she will give that determines what the seller asks of the others. What the purchaser meets in the market, therefore, is but a reflection of her own mind and that of her compeers thrown back from the mind of the seller. It is only in virtue of the obstinate illusion of the mirror that she believes the object she is contemplating to be actually, as it is in appearance, behind the fishmonger's slab, or the counter, instead of, as it really is, in front of it."

"It is the collective mind of the purchasers, then, as estimated by the sellers, that determines the price proclaimed by the latter. The sellers read the collective scale to the best of their ability, and announce their reading to the individual purchaser. If I could perfectly read your mind I should know how much tea or fruit you would buy at any price I choose to fix in my mind, and if I wanted you to buy exactly twenty-five units I should know what price to fix in order to make you do so. In like manner, if I could perfectly read the minds of all other purchasers I should know exactly how much each of them would buy at any particular price, and what particular price I must fix in order to make the sum of all their purchases reach any given amount. When they had finished their purchases, each of them having just as much as he cared to take at that price, the marginal unit of stock would occupy the same place on all their scales; and that place would be the one that equated it to the given price. There would then

be equilibrium; that is to say, since the marginal increment of the commodity would occupy the same place on every relative scale, the conditions of exchange for that commodity would no longer exist" (Pp 218 and 219.)

The justification of the author's title, *Common Sense of Political Economy*, is nowhere better shown than in his treatment of such subjects as interest, saving, accumulation, tools and machinery, and distribution. He begins his discussion of the first of these topics by calling attention to the relation between the maximum and best satisfaction of one's wants and the flow of one's income. The latter may be regular and the expenditures required for the proper and maximum satisfaction of wants may be and usually are irregular. Thus we need to purchase some commodities whose services to us are short and others whose services extend over considerable periods of time, in the former case expenditures needing to be repeated daily or weekly or at comparatively frequent intervals and in the latter at relatively long intervals—in some cases, perhaps, only a few times in a lifetime. To meet expenditures of the latter kind accumulation in advance must be made or future income anticipated. The income of a lifetime rarely, if ever, flows in such a manner as to correspond in time with these needs for expenditure, and the cases of no two persons in regard to this matter are exactly alike. In a community or a country or the world, every possible kind and degree of difference is likely to occur among the people who are in commercial relations with one another. As the author puts the matter in the summary of his chapter entitled "Interest, Tools, Land" (p 266), "one man could administer his resources for a given period more economically if he could quicken their flow for the first part of the period at the expense of slackening it in the last, and the case is reversed to another. Or both may be in the same case, but to one the advantage of anticipation may be relatively greater than to the other. Between these two the conditions of exchange exist, and if, when equilibrium is reached, there is a premium on anticipation, that constitutes one source of the phenomena of interest."

These differences between individuals result in the phenomena of accumulation, saving, and advances. The former takes place not only when precious metals and the like are hoarded, but chiefly when long-service commodities, like implements, houses, clothes, etc., are produced. This fact is obscured by the habit of associating accumulation with saving, but we should remember that the person who does the accumulating may be "bought out, day by day or week by week by

short-service commodities" and in that case does not do the saving which necessarily accompanies accumulation. That is done by others. In the words of Mr. Wicksteed, "what happens is in principle something like this:— . . . By such agencies as Savings Banks and the like a number of persons club together, generally unconsciously, so that the tiniest streams and dribbles of savings (that is to say, refrainings from drawing things out of the circle of exchange) are gathered together, and are continuously embodied in long-service commodities"; or we may put it in this way: "week by week I may abstain from short-service commodities and cede them to others as payment for embodying their efforts in long-service or slowly maturing commodities. The abstinence is mine, not theirs. They have been enjoying immediate returns to their efforts, but I, through them, have been accumulating; and, at any moment, by advancing my accumulations, I can, in virtue of the premium on anticipation which the market offers, secure the promise of a larger sum than I have saved, in a series of subsequent payments." (P. 278.)

The source of interest indicated in the preceding quotations is the difference in the needs of people for changing the distribution or flow of a given life income between the present and the future or between different future periods. Another discussed by Mr. Wicksteed is the profit to be made by using or advancing accumulations in the form of tools, machines, and other equipment which increases the efficiency of labor and natural agents. He notes that the production of these efficiency-increasing contrivances is a process of saving quite as much as the "diverting of effort from the increase of short-service commodities to the increase of long-service commodities," but that unlike the former it results in increasing income rather than in merely redistributing its flow. In this latter case as in the former, however, interest arises from the difference in the positions of people relative to savings and to their use in production. "It may, and certainly often will, happen that one man is in a relatively favourable position for saving, and another in a relatively favourable position for fertilising the result of saving. Thus it may involve relatively smaller distress on my part than it would do on yours to deflect a certain sum from my current expenditure, from the direct supply of my wants to the construction of tools; and you, on the contrary, may be able so to apply these tools as to make them increase the efficiency of your efforts more than any use to which I could have applied them would have increased mine. In that case it may well happen that the increased yield

so secured, while it would less than compensate you for the relatively severe process of saving, will more than compensate me for the relatively light one. If, then, I transfer the tools in which my saving is embodied to you, and you assign to me anything less than the whole increase of revenue, which results to you, I may be satisfied, and you may have a clear gain." (Pp. 283, 284.)

Wicksteed claims that the law of diminishing marginal significance holds in the case of tools and machines as well as in the case of consumption goods, the additions to productivity by increasing their volume being subject to the law of diminishing returns (p. 284). A manufacturer, for example, finds that a given addition to his capital requirement, say £10,000, may increase the efficiency of his staff and equipment £1,000 per year; and that the addition of a second £10,000 will increase it perhaps £500 but not £1,000. Consequently he will find it profitable to borrow £10,000 at 6% but not £20,000, and his equilibrium loan demand at 6 per cent will be £10,000. At 5 per cent he might find it profitable to borrow more.

He concludes this part of his discussion with the following statements: "We have now examined a variety of cases in which a man may be willing to promise a premium in future wealth for the possession of present wealth; and two points have come out already. Firstly: Whatever a man's reason for this wish may be, he comes into competition with all other men, who, for the same or any other reason, are willing to make similar promises. . . . Secondly: the premiums he will actually have to pay for the whole advance that he receives is not determined by the premium he would have been willing to pay for some of it sooner than go without, but by the equilibrating value of present as measured in future wealth, which is the resultant of the collective forces that play upon the market. This resultant proclaims the position of a unit-at-any-given-time-in-the-future, relatively to that of a unit-at-the-present-time, on the communal scale. It is open to any one to bring the significance of the marginal units on his own scale into harmony with this resultant. In a state of equilibrium every individual has done so; and where there is not equilibrium every individual has something (in his own estimate) to gain by approaching it." (Pp. 286, 287.)

The place of land and other natural agents in the market is essentially similar to that of tools and machines. The value of the latter rests not upon the fact that they were produced, that "much has been sacrificed" to secure them, but upon the fact that they have

"value in the present and future as a source of efficiency." The same is true of land. "Whether regarded as purely a gift of nature or partly as a manufactured article [it] has its marginal value, exactly as a tool has. It may be hired for its marginal annual yield or may be bought for the estimated significance of the indefinite succession of these annual yields, just as an engine or a house may be; and it will be balanced on the same principles against wheat or anything else that can directly minister to human satisfactions." (P. 290.)

Human services, as well as commodities of all kinds, are in the circle of exchange and follow the law of the market. Their chief peculiarities come from the facts (1) that "effort cannot be stored (except in a secondary sense and in a limited degree), unless embodied in some material thing animate or inanimate" and therefore "runs to waste if not used as the capacity for it arises"; (2) that "in many cases it is impossible for the holders to maintain an effective reserve price"; and (3) "that it is impossible to detach it (unless embodied) from its source." (P. 315.) Subject to these restrictions "the law of the market dominates the exchange of human efforts with each other and with commodities."

Markets for human efforts, however, are frequently imperfect on account of the influence of uneconomic considerations (p. 326), such as "the need for rest and aversion to irksome effort" (p. 327), "the uncertainty that often exists as to what the service bargained for will really effect" (p. 328), and the fact that the distribution of human efforts among its various markets, as well as the production of human raw material, is not responsive to demand to anything like the degree that supply of commodities is responsive to their demand. For these and other reasons the prices of human efforts do not follow fluctuations in marginal significance so closely as do commodities, but the difference is one of degree of responsiveness to the law of the market and does not remove human efforts from the dominance of that law.

"Economic forces," therefore, "tend to secure to every worker as much as he is worth at the margin to others" (p. 339). "Hence, if we say that any kind of service is over- or under-paid in the open market, we must be speaking in accordance with some ideal conception; for instance, the idea of what is due to a man, as such, rather than what he commands in virtue of the significance to others of what he can do" (*ibid.*).

"A man may be underpaid because some obstacle or obstacles have been opposed to the working-out of economic forces, but the eco-

conomic forces cannot cause a man, such as he is, to receive a lower remuneration than represents the worth to others of his work"; for they "are always urging those others to purchase anything that they can get for less than it is worth to them so that if there are any persons to whom the work of an individual (or class of individuals) would be worth more than he is now receiving for it, the economic forces urge them to offer higher terms and so secure his services" (p. 340).

In his chapters on markets of various kinds, reviewed in preceding sections, Mr. Wicksteed explained interest, rent, wages, and profits, the topics usually discussed by economists under the head of distribution. What he treats under this latter head is the analogy between the problem of the administration of resources, which he explained and solved in the very first chapter of his book, and that of the administration of the factors of production, including cost of production as a side topic.

This analogy consists in the fact that they both involve "the balancing and mutual substitution at the margin of factors in the production of a desired result which cannot be substituted for each other at their 'origin'" (p. 358), the "desired result" in the one case being the direct satisfaction of wants and in the other their indirect satisfaction through production, i.e., the increased efficiency of the factors of production.

He illustrates this analogy as follows: "Everything I want and can get out of the circle of exchange has its market price; that is to say, there are terms on which it is obtained as an alternative for other things I may desire. Given my resources, the question I have to decide is how much I am to spend on each commodity in order to bring all their marginal significances in balance with their respective prices. Now, though we cannot think of a supply of water and a supply of literature, taken as wholes, as alternatives, yet at their margins they may perfectly well be so. The water company may make an extra charge for a garden hose, and I may consider whether I will command that extra supply of water and pay the extra rate, or go without it and spend the money on . . . classics. Thus, the supplies of all the articles that I buy in relatively large quantities and in relatively small units are clearly and directly alternatives at their margins. . . .

"And just so a firm of manufacturers (or the '*entrepreneur*' or

'undertaker' who deals on their behalf with all the persons and for all the things necessary for the enterprise) will require certain things that cannot be substituted for each other in their totality" ("a place where the industry may be conducted," "some output of human energy," "material on which to work," "tools and apparatus," "subsidiary substances, such as coal, gas or water") "yet, within limits, the most apparently unlike of these factors of production can be substituted for each other at the margins, and so brought to a common measure of marginal serviceableness-in-production." (Pp. 360, 361.)

This process of comparison of results and substitution at the margins of the agents producing them is constantly in progress under the guidance of *entrepreneurs* and independent competing producers. "We may suppose that some possess land, some tools or buildings, some material, some manual skill, some knowledge of the markets on which the produce may be placed. . . . Some may contribute several factors. . . . A marginal addition or subtraction of any of the factors, the others remaining constant, may be expected to have such and such an effect on the products, and it is thus and thus only, that they can make comparisons. The withdrawal of the whole supply of labor or the whole supply of land would annihilate the industry. The withdrawal of any one class of tools, or any one kind of intelligence or experience, would severely cripple it; but the withdrawal of a defined small amount of one factor, at the margin, would produce a definite result. How much of any other factor must be withdrawn to produce the same result? When we have answered that question we have determined the relative marginal efficiency of a unit of each of the two factors, and have arrived at the principle on which they must share in the proceeds; for we can now express the contributions made to the result by all the different factors in one and the same unit, and if we divide the proceeds by the sum of these units we shall determine the share to be claimed on account of each." (P. 369.)

Since all satisfaction and increases in productive efficiency resulting from market activities are in the future, it is their estimated and not their actual results that determine the activities of the marketers. Mistakes are, therefore, possible and are frequently made, but the effects of these mistakes upon present value are nil. They can only affect future estimates and, therefore, future values. This principle reveals the essence of the relation between cost of production and value.

"In the sense of the historical and irrevocable fact that resources have been devoted to this or that special purpose, . . . [cost of production] has no influence on the value of the thing produced, and therefore does not affect its price. Cost of production, in the sense of alternatives still open which must now be relinquished in order to produce this specific article, influences the craftsman in determining whether he will produce it or not." (P. 380.)

"In no case can the cost of production have any direct influence upon the price of a commodity, if the commodity has been produced and the cost has been incurred; but in every case in which the cost of production has not yet been incurred, the manufacturer makes an estimate of the alternatives still open to him before determining whether, and in what quantities, the commodity shall be produced; and the stream of supply thus determined fixes the marginal value and the price. The only sense, then, in which cost of production can affect the value of one thing is the sense in which it is itself the value of another thing. Thus what has been variously termed utility, ophelemity, or desiredness is the sole and ultimate determinant of all exchange values." (P. 391.)

Mr. Wicksteed concludes his chapter on distribution with an excellent summary of the entire book, a summary which presents in comparatively short space a "picture of the movement of the industrial and commercial world" as he has analyzed it. The opening paragraph of this summary reads as follows: "We have now reached our goal. We have traced the identity of the great laws of the psychology of choice through all our commercial and private life, have shown that the principles on which we choose between further indulgence of our literary tastes and further support of social movements in which we are interested are the same as those on which we choose between the different wares in the market, that our resources are administered on the same principles whether directly or indirectly applied to our purposes, that our conduct in the presence of market rates itself explains how those rates are constituted, and that every man's desire to fulfill his own purposes will ceaselessly urge him to search out the means of fulfilling those of others." (P. 391.)

CHAPTER XXIV

CRITICISMS OF THE AUSTRIAN DOCTRINES

A. THE MARGINAL UTILITY THEORY OF VALUE

The basic doctrine of the Austrian School, the marginal utility theory of value, has appealed to and been adopted by many economists, but has been criticized by others. The controversy still rages and the end is not yet in sight. There is a middle class that has adopted the marginal utility analysis in their explanation of demand, but has reverted to the old analysis of costs in its explanation of supply. The Austrian method of explaining the operation of demand and supply has been widely adopted. The chief criticisms may be grouped under the following heads.

1. *Defective Psychological Basis.*¹

The essence of this criticism is that the marginal utility theory is based upon hedonistic assumptions, that is, on a pleasure-and-pain calculus, which modern psychologists have shown to be false. Professor H. J. Davenport² stated it as follows: "The dubious aspect of it is that it sounds in terms of pleasure and pain, the comparison of pleasure with pleasure, or of pain with pain, or of pleasure against pain," while "in all fields of investigation, other than jurisprudence and economics, utilitarianism stands as a point of view discredited and outworn."

"It is precisely from this point of view that the Austrian school comes seriously under suspicion. Whether it be by necessity and fundamentally, or merely through terminology and gratuitously, there is overmuch flavor in it of Benthamism, too much talk of utility in the sense of pleasure, and too much analysis of market activities in the aspect, not merely of egoistical and cool-headed farsightedness, but also of calculations worked out under a common denominator of utility for feeling—'pleasure by the shilling's worth.'"

¹ In the third edition of his *Positive Theorie des Kapitals* (1912), pp. 310-330, Bohm-Bawerk replied to this criticism.

² *Value and Distribution* (Chicago: University of Chicago Press, 1908), pp. 303-305.

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"This is, in any event, if not bad doctrine, at least questionable and unnecessary doctrine. It lacks catholicity. There are too many thinkers who believe that men sell and buy economic goods from impulse and habit and irreflection—that instinct and appetite and spontaneity manifest themselves in the economic world as truly as in the world of play or romance. There are those going even so far as to say that primarily we do not desire things because they give us pleasure, but that they give us pleasure because we desire them. Just as the chicken pecks its way out of its shell without foreknowledge of the glories of the outside day, and, immediately upon exit, picks up a grain or two of sand, nowise interested in the near-by gratification from its pungent flavor or in the faraway joys to accrue from a well-sanded digestion, just so human instinct and tastes and impulses reach their time, and spontaneous activities press forward to expression; rattles wane and dolls wax, while in later succession sleds and canes and sweethearts and homes and offspring and offices and professorships crowd upon the stage of human activity. Things move from indifference through gratification to satiation, as men change in their equipment of desires and tastes and sympathies; and, when a thing comes to give us pleasure, it does so merely because we have come to like it. As one wakes in the morning according to the inner time-lock which he set at bed-going, as a hypnotic patient carries out, days later, the mandate given during his forgotten trance experience, as the *idée fixe* of pathological mental conditions, or even of habit, guards one against all influence of argument or appeal, as the resolve of yesterday remains by that mere fact the cherished goal of to-day, so do all of us, in a wide domain of our activities, move in a half-blind trance of inherited impulses and instincts and of acquired tendencies and aims. So much of our action is essentially reflex that there is more question whether any of it is altogether calculated and purposeful than whether all of it is."

In a paper read before the sixth annual meeting of the Pacific Collegiate Economic and Commercial Conference, held December 28 and 29, 1927, at Vancouver, British Columbia, Professor B. F. Haley of Stanford University summarized the view of these critics as follows:³

"First, there is the insistent claim that the untrue psychology assumed by the theory makes the formula of marginal utility an inadequate description of the price-making process. Man does not often decide what he wants and what he does not want on a purely rational basis, nor does he make a choice between two satisfactions on any such basis. His fundamental wants, such as those for food and shelter, probably have some sort of an instinctive basis. But even these wants, as they are evidenced in everyday

³ *Proceedings of the Sixth Annual Meeting of the Pacific Collegiate Economic and Commercial Congress*, pp. 4, 5.

life, have been elaborated and rendered highly complex habits by such social forces as custom, style, and advertising. Physiologically, we demand food. Actually, we demand specified brands of a great variety of foodstuffs. Above this lower level of habitual responses, there is a second level of wants which probably have no instinctive basis, which are almost entirely habitual, and which are largely socially determined. We do not go through any extensive hedonistic calculus when we purchase a package of cigarettes, attend the weekly moving picture, or replace a worn-out item of our wardrobe. Back of the whole process, no doubt, there is some sort of a crude budgeting of income, which reflects the small element of deliberative choice so much emphasized by the marginal-utility theorist—an element which we find coming into the foreground when we are faced with the necessity of making some unusual expenditure such as that involved in the purchase of an automobile or radio. But the marginal-utility theory, ignoring as it does the instinctive and habitual elements in choice and the social origin of our wants, is, the critics say, an inadequate explanation of the price-making process."

Another phase of this criticism was represented by the late Professor Thorstein Veblen, from whom Professor Haley quotes as follows: "the hedonistic psychology is, on the whole, a not untrue description of the behavior of the business man, insofar as he is guided by reason. But the theory is defective in that it takes for granted the whole institutional background of exchange. For instance, the business man is not accumulating wealth with the specific purpose of converting it into consumption goods, or into sensations of pleasure. His aim may be the attainment of power, the esteem of his fellows, or social recognition—for, in a pecuniary society, success is measured in terms of money. These 'conventional aims, ideals, aspirations, and standards' of the business man are pecuniary institutions, and no theory of business enterprise, of exchange or of value can be adequate which does not take into consideration these institutional factors."⁴

Two forms of reply to this criticism have been made. One is that, so far as the marginal utility theory of value is concerned, modern psychology leads to substantially the same conclusions as that of the hedonists. Professor Dickinson⁵ puts it as follows: "We have found that recent work on habit and instinct tends to confirm, much more than James and McDougall would have us believe, the common-sense hedonistic assumptions that people usually act for the sake of

⁴ *Ibid.*, p. 5.

⁵ Zenar Clark Dickinson, *Economic Motives* (Cambridge, Massachusetts: Harvard University Press, 1922), p. 205.

expected consequences and that they are constantly learning more and more economical means of getting whatever objects are pleasing to them. That is to say, all people are rational in the only reasonable sense of that word. And we are moved to work by 'utilities' which, for the most part, are derived from economic goods. These broad premises of the classical and marginal utility economics are still unshaken."

The second kind of reply is that marginal utility theory is not tied up with the hedonistic or any other kind of psychology in such a way that it stands or falls with it. Mr. H. W. Stuart, who is by no means a defender of the Austrian School, concludes a discussion of the subject as follows.⁶ "The work of the Austrian School, whatever its shortcomings, is not logically grounded upon the hedonistic theory of desire. . . . On the contrary we have the simple statement that [subjective] value is the importance which a good or a complex of goods possesses with respect to the well-being of a subject. Upon this truth, and the other perfectly obvious one, that the importance of a single article for one's well-being depends upon the numbers of similar articles one may possess, the superstructure is built. Obviously the person concerned is the sole judge of this importance, and his judgment is none the less his own, and none the less a judgment of utility for him, because he allows it to be influenced by the 'demands of society.'" He adds: "Whatever its merits and faults may be, its [the Austrian Economics'] fortunes are in no wise bound up with those of the Benthamite psychology."

Professor Davenport concluded his discussion of this criticism with the following words:⁷

"It is enough that we choose in fine gradations and with clear distinctions, and it does not matter whether the measure be accurate, the process rational, or the result correct.

"That most of our activity is of the irreflective traditional sort is, indeed, admitted by Boehm-Bawerk: 'Numberless economic acts are performed purely automatically or mechanically'; and all choices might be reached in as mechanical a way as some are—and as perhaps all really are—and yet economic facts would remain practically and theoretically much as now. We do seem to ourselves to do some considering; we might do either more or less and still the fact of deciding would remain—choices between goods and choices between alternative activities would still take place, and our

⁶ "The Hedonistic Interpretation of Subjective Value," *Jour. Pol. Econ.*, IV, 74, 75.

⁷ *Op. cit.*, pp. 306, 307.

economic theories would still formulate themselves very much as they are now formulated.

"So it does not much matter for the economic aspects of either the older or the newer thought whether one concurs in the anti-utilitarian protest. The later investigators, like the earlier, appear to be grievously given over to hedonism, but so have other men been to Methodism without obvious disadvantage to their economic theories. So much is, indeed, asserted by both Boehm-Bawerk and Von Wieser, and one wonders mostly why, if all this hedonism is, in fact, so unessential, one finds so much of it. And yet it may safely be asserted that there is not one single essential doctrine in the system that might not, without substantial impairment or change of economic bearing, be stripped of its psychological or ethical implications."

Several writers,⁸ including Professor Davenport, have stated the marginal utility theory in a form which does not suggest or imply hedonistic assumptions.

2. *Futility.*

One of the most extreme of the critics of this theory, E. H. Downey, makes as a rejoinder to writers who have attempted to state it without psychological implications, the statement that, in case it be stripped of its hedonistic accompaniments, "the marginal utility analysis of price loses all its significance," "its whole content", "that it is reduced to the unobjectionable statements (1) that men will not buy a thing unless they want it, (2) that a commodity cannot be sold for more than somebody is willing to pay for it; (3) that in a perfect market no one will pay more for a given commodity than anyone else."⁹

A less extreme and more accurate statement of the content of the theory without its hedonistic accompaniments is as follows: "With such a theory, it would be possible for us to declare, with some degree of certainty, that the demand curve for any commodity is negatively inclined. Thus we would have a theoretical basis for our assumption of a single price for a single commodity in a single market at a single point of time. Furthermore, we would be able to predict that, the prices of all other commodities remaining the same, and curves of desire for our particular commodity remaining the same, a decrease in the supply of that particular commodity would result in a rise of its price and *vice versa*. But that would be about the full extent of the usefulness of the theory."¹⁰

⁸ Notably Fetter, Pareto, Walras, and Schumpeter.

⁹ "The Futility of Marginal Utility," *Jour. Pol. Econ.*, XVIII, 262.

¹⁰ Haley, *loc. cit.* pp. 8 and 9.

Neither of these statements takes into account those aspects of the theory which relate to the explanation of costs, interest, and the other shares in distribution or adequately appraises the importance to economics of the emphasis it places upon the demand side of the price problem, however explained; of the detailed operation of demand and supply in the price determining process, which it supplies; of the "motivating function of value" which it emphasizes; and of the manner in which it utilizes the concept of margins. Because it fails to explain all the phenomena that need explanation or has been used by some of its advocates to supply false or inadequate explanations, these extreme critics would throw it on the scrap-heap, or think they have thrown it upon the scrap-heap when they are merely unconscious of the elements of it they have themselves absorbed and habitually use. The marginal utility theory may not be, and probably is not, the last word on the subject, but it will continue to hold its ground until something better has been found to take its place, and then it will probably be found that this theory has been an important aid in finding that something better.

Mr. Downey does not rest his charge of "futility" solely upon the ground of the "psychological inadequacy" of the theory but adds that it "falls short of practical usefulness." The substance of his argument on this point is "that no generalization about price which is of much significance can be true. It is, to be sure, often convenient to comprehend the multitudinous price-factors in some general formula—as that price depends upon the demand and supply forces in the particular case, together with the relative 'strategic' position of buyer and seller. But such a formula has meaning only as content has been given to its terms by previous analysis; and it is applicable to any concrete case only in the sense of pointing to the need of specific analysis." In regard to the particular generalization he is criticizing he says:

"The marginal-utility theory aims at showing, not how price is determined in any actual case, but how price would be determined if men were to act in certain ways under certain assumed circumstances. This mode of theorizing is grounded upon the assumption that the behavior of men in any given situation can be predicted from elementary human nature. It appears that adepts of the theory have misconceived human nature, and that the situation in which they assume market price to be worked out never actually occurs. But the decisive objection to this whole line of doctrine goes to the basis upon which it is built up. Elementary human nature may (or may not) be fairly uniform. The behavior of men can be neither predicted

nor understood apart from their habitual modes of thought and from the institutional situation in which they act. It is not surprising, therefore, that a century and a quarter of diligent research into 'labor pain,' 'abstinence,' 'marginal utility,' and the like, should have contributed substantially nothing to 'the increase and diffusion of knowledge among men.'"¹¹

Mr. Downey concludes his criticism with the following statement: "Marginal-utility economics is an admirable body of dialectics scarcely surpassed for subtlety, reach and want of content by the finest products of mediaeval scholasticism. It affords unrivaled opportunity for the pursuit of refined distinctions between elusive ideas and for the multiplication of strange-sounding terms. 'Economics' of this type strongly attracts men of a metaphysical turn of mind, and will doubtless continue to be cultivated. But it has not contributed, and it cannot contribute, to the elucidation of any practical problem."¹²

The basic statements of this sweeping indictment have not been adequately supported in the article in which they are made and will certainly be questioned by economists who are interested in the theoretical as well as the so-called practical aspects of the science. In the first place, consider the statement "that no generalization about price which is of much significance can be true." There is, of course, opportunity for quibbling over the meaning of the phrase "much significance," but it is safe to say that few economists, or so-called practical men for that matter, would consider insignificant or of little significance generalizations regarding demand and supply, costs, money and credit, etc., which are commonly accepted as true by all thinkers and observers, however much they may differ regarding certain aspects of these subjects.

Consider next Mr. Downey's statement that the marginal utility theory, or the "mode of theorizing" of which it is a sample, "is grounded upon the assumption that the behavior of men in any given situation can be predicted from elementary human nature." While the grounds for this statement are left to the reader's imagination, its falsity is too obvious to require comment. Theorizing from abstractions of certain qualities of what Mr. Downey calls "elementary human nature," common from Ricardo down to the present, has never been regarded by any reputable economist as an adequate basis for the prediction of human behavior. All that has been claimed for it is that it helps to explain such behavior; it must always be supplemented

¹¹ *Loc. cit.*, p. 268.

¹² *Ibid.*

by the consideration of the elements of the actual situation not included in the abstraction. The fact that some economists have been guilty of giving these abstractions greater weight in explaining human behavior than they deserve by no means justifies Mr. Downey's sweeping statement or proves that this "mode of theorizing" is without value.

Consider finally the statement that "the marginal-utility theory aims at showing, not how price is determined in any actual case, but how price would be determined if men were to act in certain ways under certain assumed circumstances." It is quite certain that no advocate of this theory would accept this as a correct statement of its aim. He would readily admit that certain assumptions, such as free competition with its numerous implications, are implied, but he would not admit that these assumptions prevent the theory from showing "how price is determined in any actual case." On the contrary he would claim as the chief merit of the theory that it does in substance explain how prices are actually determined. It is probable that this statement of Professor Downey's is based upon his assumption that this theory is necessarily based upon the hedonistic psychology, an assumption which has already been considered in preceding paragraphs.

3. *Marginal Costs versus Marginal Utility.*

One of the earliest criticisms of this theory was made in 1885 by Carl Dietzel in a review of Von Wieser's *Ursprung und Hauptgesetze des wirtschaftlichen Werts*. This was published in Conrad's *Jahrbuch* and, after the publication of Bohm-Bawerk's books, was followed in the same periodical by an interesting controversy between Dietzel on the one side and Zuckerkandl and Böhm-Bawerk on the other.¹³

A large part of Dietzel's discussion¹⁴ is beside the mark because it does not join issue with the Austrians. For example, he begins with an attempt to prove that in a Crusoe economy labor-cost is the only practicable basis of comparison between goods. This may be true, but it is not the question at issue. The Austrians seek to determine in the first place how people assign importance to goods in relation to their well-being and in the second place how the estimates thus placed upon goods enter into the determination of exchange values.

¹³ See Dietzel's "Die klassische Werttheorie und die Theorie vom Grenznutzen," N. F. XX, 563; Zuckerkandl's same title, *ibid.*, XXI, 509; Bohm-Bawerk, "Ein Zwischenwort zur Werttheorie," *ibid.*, XXI, 519; Dietzel's "Zur klassischen Wert und Preistheorie," dritte Folge, I, 685; and Bohm-Bawerk's "Wert, Kosten und Grenznutzen," *ibid.*, III, 321. See also Davenport, *op. cit.*, pp. 339 ff.

They admit that there are cases and conceivable situations, in which importance to well-being is measured by labor-costs, but they deny that these cases and situations are the typical ones in our division-of-labor-exchange economy. In any case they affirm that it is only when and to the degree that labor-costs or any or all other influences affect people's estimates of the relation of goods to their well-being that they affect subjective value and through it exchange value. They contend that the relations of cause and effect in the chain that ends in market values begin with estimates by individuals of the relation between units of goods and their well-being, i.e., marginal utility, and run through the machinery of demand and supply from it to market value. Back of these estimates and contributing to them may be and are many and various influences, of which labor-costs—in some, but comparatively few cases—are one. Marginal utility is, so to speak, the nerve-center into which all these other nerves run and through which they exert their influence on economic value.

In the course of the discussion Böhm-Bawerk attempted to bring the controversy to precise issues, and to a degree he succeeded. It was agreed, for example, that the word *costs* in the discussion should refer to the different outlays of the *entrepreneur* and not to a "sum of labor," labor-costs thus meaning the payments made to laborers for their services rather than a quantum of sacrifices endured by laborers. The question at issue thus became: Does the value of the cost goods, including labor, determine the value of the product or vice versa? Dietzel's answer to this question was: *Each is the cause of the other*; Böhm-Bawerk's and the other Austrians, that in the final analysis value of product determines the value of cost goods.

Dietzel's argument consists of the superficial tracing of the mutual relations between production and consumption goods. He shows that, if the former are valueless, so are the latter and vice versa, but he does not go to the roots of the problem of explaining why either is valuable. He contents himself by affirming that the explanation is to be found in scarcity, without following out the implications of this explanation.

That there are mutual action and reaction between value of product and value of cost goods and constant readjustments of the one to the other is not only not denied but clearly asserted by Böhm-Bawerk and the other Austrians, and they even go so far as to trace these mutual reactions and adjustments; they insist, however, that, when they are fully traced, a final ultimate cause is found in marginal utility of consumption goods. For example, as one traces these actions and

reactions further and further back, he comes, as the classical economists showed, to labor as the ultimate cost good and to the question of what determines the value of that labor. To say, as the classical economists said and as Dietzel asserts, that in the long adjustment the value of that labor is determined by the cost of its production in terms of the value of the food, shelter, etc., needed to support and maintain the labor supply is no answer, since it explains value of labor in terms of value of goods; no solution of the difficulty surely, since the value of said goods remains to be explained—the same old problem in the same old form.

There is no escape from the fact that Dietzel's reasoning left the problem of value unsolved. It did not bring him to the final issues. It was occupied with mediate and not with ultimate relations of cause and effect. Whatever may be the defects of the Austrians' reasoning, it has the merit of concerning itself with the ultimate relations. The only form of the cost theory which reaches down to these is that which conceives of labor-costs as labor sacrifices and explains the estimates individuals put upon goods, as conditions of their well-being, as determined by the sacrifices their production entails rather than by the satisfactions they yield. The issues here involved were discussed by Von Wieser and are explained in Chapter XXI. Dietzel came nearest to them in the early part of his discussion reviewed above, but in confining his analysis to the Crusoe economy he failed to grapple with them in the aspects they assume in actual life.

4. *Excessive Abstraction and Circular Reasoning.*

In his book on *Social Value*, published in 1911, Mr. B. M. Anderson attacks the marginal utility theory on the grounds of excessive abstraction and circular reasoning¹⁴: "The great and permanent service of the Austrian analysis," he says, "is in the fact that it looks for the explanation of value—a psychical fact—in human minds. Its essential defect is that it takes only a small part of the human mind for that explanation. It makes two abstractions, neither of which is allowable: first, it abstracts the individual mind from its vital and organic union with the social milieu; and second, it abstracts from the 'individual mind,' thus abstracted, only those desires and thoughts which are immediately concerned with the consumption and production of economic

¹⁴ B. M. Anderson, *Social Value* (Boston: Houghton Mifflin Company, 1911), pp. 45-47.

goods—really, in the narrower analysis of ‘market price,’ only those concerned with the consumption of economic goods.”

Mr. Anderson concedes that a certain amount of abstraction in the explanation of value is necessary and therefore permissible, but he claims that the Austrians, in drawing the line between the permissible and the non-permissible, have violated the “familiar canon” that “we must include enough in our *explanation* phenomena to enable us to explain our *problem* phenomena in terms other than itself. Concretely, in explaining value, we have not solved the problem if the explanation assumes value.”

That the Austrian explanation is guilty of this circular reasoning he attempts to prove in the following manner¹⁸: “Why has good, A, value? Because men desire it? No, that is not enough; the men who desire it must have other economic goods, i.e. wealth, with which to buy it. And why will these other goods buy it? Because they have *value*. For the power is proportional, not to the quantity of their wealth in pounds or yards or other physical units, but simply to its amount of *value*. The explanation of the value of these goods then becomes another problem, for which the Austrian analysis can offer only the same solution, with the same circle in the reasoning, and the same problem of value at the end.”

In order to determine whether this charge of “circular reasoning” against the Austrian analysis is or is not valid, we must recur to the starting point of that analysis, namely, *individuals with wants*; and *physical environment* which supplies, in various degrees of abundance from superfluity to extreme rarity, for the satisfaction of those wants, commodities ready for consumption and materials and powers capable of being transformed into such commodities. By various processes this physical environment, or that part of it capable of appropriation, became the private property, or at least subject to the disposition, of individuals or groups of individuals and constituted for them an original endowment of purchasing power. The power to render service is another original endowment which supplies purchasing power even to people who lack a share of this original physical equipment. According to the Austrian analysis, differences in the marginal utilities of these original endowments to different individuals lead to exchanges between them and to the familiar phenomena of market value and prices.

Can the charge of circular reasoning be made against that analysis?

¹⁸ *Ibid.*, pp. 46, 47.

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It is true that the commodities and services exchanged are assumed to have value in the sense that they are wanted and that they exist in such a degree of scarcity as to establish a relation of cause and effect between the acquisition or the loss of the good and some degree of want-satisfaction. Is it necessary to go back of the fact of the existence of natural materials and forces and human services in a degree of scarcity as compared with the desires of individuals for them in order to explain the original endowment of individuals with purchasing power? And does the assumption of this fact justify the charge of circular reasoning? If so, can any process of reasoning escape that charge, the premises of which are alleged observations of the facts of physical and human nature?

Regarding the other phase of Mr. Anderson's criticism, namely, that "the Austrian analysis was essentially faulty . . . in its abstraction of the economic from other aspects of the individual's value system," the question may be raised whether the Austrians are actually guilty of this abstraction. Is not the trouble rather that the essentials of the marginal utility theory are independent of the kind of value analysis Mr. Anderson has made, that his analysis supplements rather than supersedes the Austrian, that the problem he attacked and that attacked by the Austrians are different problems or, perhaps, different and not inconsistent phases of the same problem?

B. BÖHM-BAWERK'S TREATMENT OF INTEREST

The agio theory of interest has gained widespread recognition in no small degree on account of Böhm-Bawerk's influence. Its central idea, that interest is explained by the difference in value between present and future goods, was not original with him. Remote allusions to it had been made by Galiani and Turgot; in 1834 John Rae had clearly formulated it and developed one of the causes of this difference, namely the influence of time upon the estimates people make of needs and goods. Later Stanley Jevons "worked out in a masterly way most of the premises upon which the theory rests"¹⁶; and later still, in the interval between the publication of Böhm-Bawerk's *Capital and Interest* and that of his *Positive Theory of Capital*, Launhardt (*Mathematische Begründung der Volkswirtschaftslehre*) and Emil Sax (*Grundlegung der theoretischen Staatswirtschaft*), clearly expressed the same idea and connected it with the marginal utility theory of

¹⁶ Eugen von Böhm-Bawerk, *Recent Literature on Interest*, translated by William A. Scott and Siegmund Feilbogen (New York, The Macmillan Company, 1903), p. 6.

value. None of these authors, however, had worked out this principle to its final consequences, connected it with all forms of interest phenomena, and fully explained it. While Böhm-Bawerk had not seen Rae's work when he wrote the first edition of his *Positive Theory* and while he therefore deserves more credit for originality than some people have been willing to accord him, his special contribution consists in doing what his predecessors had left undone, namely, in fully developing the theory in all its aspects and in showing precisely how it differs from other explanations.

To be more specific, Böhm-Bawerk's predecessors had developed two different lines of thought, "one connecting interest with the influence which time exerts upon the estimation of needs and goods, and the other with certain facts connected with the technique of production,"¹⁷ but they had failed to show how these elements coöperate in the determination of the rate of interest. This in particular was the fault of Rae, who recognized both elements. Jevons "did not attempt to combine them in his explanation, but adopted an eclectic method, explaining the external technical facts connected with the productivity of capital after the manner of the productivity theory, and the psychological facts after the manner of the abstinence theory. Launhardt and Sax did not seem to feel the necessity of employing the former element in their explanation."¹⁸ Böhm-Bawerk not only showed how these two elements were connected but also did much more. In the historical part of his work he distinguished and clearly labeled all the ideas that had been employed in the explanation of interest; clearly explained the various forms in which interest phenomena appear; distinguished between the explanation of interest and its justification; developed, with additions of his own, the ideas of his predecessors which had in them explanatory power into a complete, logical explanation; and fitted that explanation into the system of thought which the Austrian School had outlined and partly developed. He thus gave vitality to ideas which his predecessors had left cold and lifeless, added substantially to their clarity and content, and made them a part of a new current of thought which was destined to quicken and change the direction of the older ones.

Böhm-Bawerk's critics have followed three lines of attack. They have accused him of misinterpreting many of the authors whose views

¹⁷ From Böhm-Bawerk, *Recent Literature on Interest*, p. xxxii. By permission of The Macmillan Company, publishers.

¹⁸ *Ibid.*, pp. xxxii, xxxiii.

he criticizes; of mistaking his own explanation of interest for a new theory, whereas it is only a restatement of old ideas; and of making an error in his attempt to connect the productivity of capital with the explanation of interest through the principal of the technical superiority of present goods.

The first kind of criticism is represented by the late Francis Walker and Professor Alfred Marshall. The former claimed that Böhm-Bawerk frequently mistook "blunders of expression" for errors of judgment. Being a firm adherent of the productivity theory, and unable to believe that any really able thinker could have sought for an explanation of interest in any other direction, Walker denied the separate existence of the abstinence and use theories, claiming that the authors of these so-called theories intended them only as "a social justification of interest" and not as adequate explanations of the causes of this phenomenon. In this connection he mentioned especially Hermann, Karl Menger, and Senior.

The following quotations in regard to the criticisms of Walker and Marshall are taken from the present writer's preface to *Recent Literature on Interest*.

"Professor Marshall found the explanation of interest in the coöperation of what he calls the 'productiveness' and the 'prospectiveness' of capital, the former determining the demand for that factor of production, and the latter limiting the supply. He believed that most of the writers on interest have had both these elements of the problem in mind, and have differed from each other chiefly in the fact that some have laid more emphasis upon the one and others upon the other. He has expressed the opinion that many of the authors criticized by Böhm-Bawerk would not have accepted his statements as fair and complete presentations of their views."

"In reply, Böhm-Bawerk says that the question at issue between himself and such critics as Walker and Marshall does not so much concern the interpretation and estimation of the views of other authors as the real essence of the interest problem, and the requirements for its solution. Regarding what the authors criticized really meant, he is quite willing to leave the decision to the intelligent readers of his book, for whose benefit he has very often quoted their exact words; but in justification of his view of the nature of the problem of interest, and the conditions necessary for its solution, he submits some characteristic statements of Walker and Marshall to analysis and criticism.

"He disposes of Walker in a single paragraph. Referring to his

statement regarding the teachings of Hermann, Menger, and Senior that 'they thus reached a social justification of interest which no one of them probably ever mistook for a scientific ascertainment of the cause of interest,' and that on account of their 'blunders in expression' Böhm-Bawerk ascribed to them independent, deeply thought-out theories which they never held. He says: 'I do not think that I need waste a single word to prove that, on the contrary, it would have been most ungenerous, and for a true historian absolutely impossible, to have simply obliterated the use and abstinence theories from the history of the development of interest theories and to have drawn the old story of the productivity theory from the most widely differing methods of explanation, or, more accurately, to have forced that interpretation upon them.'

"The criticism of Marshall bears upon two points chiefly. In Böhm-Bawerk's opinion he overestimated the explanatory power of the cooperation of 'productiveness' and 'prospectiveness,' and was deceived regarding the actual relation in which the different groups of theories stand to this coöperation.

"On the first point Böhm-Bawerk refers to a passage in the chapter on the eclectics, in which he says that no impartial observer could fail to see that interest is in some way connected with the productivity of capital, and with the abstinence required for saving, but such an observation, he says, comes far short of an explanation of interest. It may be compared to the observation that a rainbow appears whenever the sun strikes a rain-cloud at a certain angle. No one would regard this as a scientific explanation of the rainbow. It is the duty of science to point out the exact connection between this apparent cause and its effects, and the explanation would be very different according as the scientist assumed the undulatory or the emission theory of light. In like manner, 'productiveness' and 'prospectiveness' furnish no explanation of interest. They constitute only the framework of an explanation. The problem is to show the connection between these facts and interest.

"The injustice of Marshall's charges and his evident misunderstanding of Böhm-Bawerk's real attitude toward the authors he criticizes is further shown by reference to certain passages in the first edition in which Böhm-Bawerk pointed out the affinity between the use and the productivity theories. In one place he called the former an offshoot of the latter, and in another he said: 'This theory [the use theory] assumes capital to be productive.' Again he said: 'The relation

of use theories to the productive power of capital will not, however, be found stated so clearly in the writings of their representatives as I have thought necessary to state it. On the contrary, indeed, appeals to the productive power of capital long accompany the development of the use theory proper, and we are very often left in doubt whether the author relies, for his explanations of surplus value, more on the productive power of capital or on the arguments peculiar to the use theory.

"Marshall reproached Böhm-Bawerk for having failed to credit some of the naïve-productivity theorists with a recognition of the significance of abstinence in the explanation of interest. In reply, Böhm-Bawerk affirms that he noted every express utterance of the most important writers of this group indicative of such recognition; for example, of J. B. Say, Roscher, Rossi, Leroy-Beaulieu, Cauwés, and others. He adds that he classed as eclectics those writers who combine the distinct and explicit recognition of sacrifice and abstinence with positive assertions of the independent value-creating power of capital, but insists that there are writers belonging to the 'naïve-productivity' group who do not accompany their emphatic assertions of the independent productivity of capital with any allusion to the concurrent influence of sacrifice or 'prospectiveness,' and that he would have been unjust to these authors and unfaithful to history if he had assumed that they recognized such an influence. 'I believe,' he says, 'that a certain tendency of thinking, once rather popular, though at present entirely obsolete, led to the belief that the theoretical problem of interest could be perfectly explained by reference to the independent, value-creating power of capital, and that this tendency occupies a middle position in point of time between the old physiocratic view of the exclusive, value-creating power of land and the more recent socialistic doctrine, now on the road to destruction, of the exclusive, value-creating power of labour, and is allied to both these ideas.' He would, therefore, have been unjust to the writers he discussed if he had criticized them for views which he assumed, without direct evidence and sometimes even against indirect evidence, that they held." ¹⁹

The second type of critic is represented by Messrs. Macfarlane and Carver who regard the *agio* theory as substantially identical with the abstinence theory stated in the forms they approve. They do not, therefore, so much disapprove of the substance of Böhm-Bawerk's

¹⁹ Quoted from the writer's preface to Böhm-Bawerk, *Recent Literature on Interest*, pp. ix-xv. By permission of The Macmillan Company, publishers.

explanation of interest as of the form in which it is stated. The explanation which they approve, however, and which they regard as substantially like his, Böhm-Bawerk regards as forms of the abstinence theory and subject to the criticisms he has passed on that theory.

The third type of critic is represented by Irving Fisher²⁰ who is an advocate of the agio theory but objects to that portion of Böhm-Bawerk's explanation which is based on what he calls the technical superiority of present goods. Fisher's analysis of Böhm-Bawerk's reasoning relative to this point is stated as follows: "In the reasoning by which Böhm-Bawerk attempts to prove this technical superiority, there are three principal steps. The first consists of postulating an 'average production period' representing the length of the productive processes of the community; the second consists of the proposition that the longer this average production period, the greater will be the product; and the third consists in the conclusion that in consequence of this greater productiveness of lengthy processes, present goods possess a 'technical superiority' over future goods."²¹

He then endeavors to show "that the third of these steps contains a fatal error" and that the first "is not wholly satisfactory." The unsatisfactory character of the first step Fisher explains as a lack of "sufficient definiteness" in the concept of an average production period "to form a basis for the reasoning that he [Böhm-Bawerk] attempts to base upon it,"²² but since he does not seem to consider this as the vital part of his criticism, we will pass it over and proceed to what Fisher calls "a fatal error." It is this: Böhm-Bawerk treats the technical superiority of present goods as an *independent cause* of interest *coöperating with* "the 'perspective underestimate' of the future" and "the relative inadequacy of the 'provision' for present wants as compared with the provision for future wants"; whereas, according to Fisher, it is really included in the last-mentioned cause and is not, therefore, *independent*.

It should be noted that Fisher does not deny the technical superiority of present goods in the sense in which Böhm-Bawerk uses the

²⁰ Other critics belonging to this group are F. A. Fetter, "The Roundabout Process in the Interest Theory," *Q.J.E.*, XVII, 13; LEMIS, *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft*, 1895, pp. 332-337; and Bortkiewicz, *ibid.*, 1906, p. 69. Fisher's criticism is selected as representative because it includes all the important points brought out by the others and is more comprehensive and complete than any of the others.

²¹ Irving Fisher, *The Rate of Interest* (New York: The Macmillan Company, 1907), p. 55.

²² *Ibid.*, p. 56.

term, as simply indicating the capacity which present goods give to adopt "round-a-bout" and therefore more productive processes, but claims that it produces its effect on interest not *independently*, as Böhm-Bawerk claims, but through its admitted effect upon the "relative scarcity of present goods compared with future goods." In other words Fisher does not deny that the technical superiority of present goods is often *the cause* of the relation that actually exists between the provision for the wants of the present and the future and, therefore, of the value of present as compared with that of future goods, but he denies to this cause the attribute of independence because it produces its effect mediately, i.e., through an intermediary rather than directly or without an intermediary.

If any criticism is to be passed upon Böhm-Bawerk at this point, it should be not that he treated the technical superiority of present goods as an independent cause of interest but that he so treated the relation between wants and provision for wants, since this relation is always the result of causes lying back of it, of which technical superiority of present goods is one, while "bad harvests," "loss by fire," "death in the family," and other things mentioned by Böhm-Bawerk are others.

Fisher's criticism turns upon the meaning to be attached to the term *independent cause*. He apparently means by it any cause, whether mediate or final, which may or does operate without the cooperation of other causes. Böhm-Bawerk meant by it a cause that can and should be distinguished from others as contributing to the effect in question, whether operating alone or in coöperation and combination with other causes. All that Böhm-Bawerk meant by the statement that the technical superiority of present goods is a cause of interest is that the fact that present goods enable one to undertake "round-a-bout," and therefore more productive, processes of production cannot be ignored in the explanation of the higher estimate which men put upon present goods as compared with future. Other facts which likewise cannot be ignored in such an explanation are the tendency of people for one reason or another to underestimate the future and a variety of influences beside the use of present goods in "round-a-bout" processes, such as bad harvests, losses by fire, death in the family, etc., which for short he summarized as influences affecting the relation between wants and the provision for wants in the present and future. Nothing that Fisher has said affects in the slightest degree the validity of these propositions.

Indeed, Fisher includes them all in his own explanation, which differs from Böhm-Bawerk's in form only and not in essential substance.

In the third edition of his *Positive Theory* (Exkurs XII) Böhm-Bawerk analyzed Fisher's criticism and replied to it in a manner which compares favorably with the best of his critical work.

CHAPTER XXV

JOHN BATES CLARK

While the Austrian economists were developing their system of thought on the basis of Menger's *Grundsätze*, a young American was working independently along lines in some respects similar. Like them he was attempting to reconstruct economic science, and in the field of value he developed a theory in fundamentals like theirs. In the field of distribution his thought followed different lines, and he worked out a body of theory quite different and much more rounded-out and complete than theirs. This young man was John B. Clark, who became interested in philosophical studies during his college course in Brown University and was introduced to the study of economics by President Seelye of Amherst College during his senior year in Amherst. This interest guided him in 1872 to Germany, where he studied for three years at Heidelberg under the inspiration and guidance of Karl Knies. Returning to the United States he taught economics successively at Carleton College, Smith College, Amherst, and, from 1895 to the date of his retirement, at Columbia University.

As a writer and thinker his best work has been done in the field of pure theory, though his interest extended to current economic and social problems, the highest social ideals having never been absent from his mind even in his theoretical studies. In his earlier writings these ideals were frequently stressed and in his first book, *The Philosophy of Wealth*, published in 1885, the ethical aspects and bearings of economics were placed in the foreground to such a degree as to justify the expectation that he would devote a much larger share of his future energies to these matters than was actually the case.

The fact that his major work was theoretical is probably to be explained by a natural bent in that direction which was quite likely strengthened by Knies, who, in spite of the fact that he is chiefly known as an historical economist, was much more of a theorist than an historian, a fact which appeared in his lectures, during the period that Clark was a listener, as well as in his books. It should also be noted that Professor Clark believed that the economics of his day

needed heroic theoretical treatment and that its reconstruction must be sought along that line, his views in this respect contrasting radically with those of his old teacher, Knies, as well as with those of his great English contemporary, Alfred Marshall. Indeed it would be difficult to find in the academic literature of recent times a more interesting contrast than that between Clark's *Distribution of Wealth* and Marshall's *Principles*, both striving toward the same goal by methods diametrically opposite. Clark was "heroically theoretical," while Marshall was continually placing limitations on the application of theories, noting exceptions to them, and refusing to be bound by carefully defined concepts.

Beside the two books already mentioned, published respectively in 1885 and 1899, Clark published in 1907 *Essentials of Economic Theory* and a considerable number of articles in periodicals scattered throughout the years of his activity. His system of thought is most completely developed as a whole in his *Distribution of Wealth*, though parts of it, notably that concerning what he called "social economic dynamics," are carried somewhat farther in his *Essentials of Economic Theory*. Between his earlier and later writings it is possible to find what appear to be contradictions,¹ but his mature thought as presented in the two last books above mentioned and in the most noteworthy of his articles and monographs is consistent and worked out with great clarity and, excepting that part belonging to the field of dynamics, which was presented only as an outline sketch of what he hoped to develop in a future work, with great completeness. The following analysis is based chiefly upon *The Distribution of Wealth*.

A. SUBDIVISIONS OF ECONOMIC THEORY

As a basis for his "theory of wages, interest and profits" he recommended a new classification of the subject-matter of economic theory. The first subdivision he proposed embraces "the universal phenomena of wealth"; the second, "social economic statics"; and the third, "social economic dynamics." By "the universal phenomena of wealth" he meant whatever "is true of the wealth-getting and the wealth-using process under every condition of social development," including that stage which preceded social organization; by "social economic statics," "what further happens, in connection with wealth, if society is organized, and if no change takes place in its form of organization or

¹ See Paul T. Homan's chapter on John B. Clark in his *Contemporary Economic Thought*.

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in its mode of action"; and by "social economic dynamics," "what still further happens, as regards the wealth and welfare of the community, by reason of the fact that society is changing in form and in modes of activity."²

B. THE UNIVERSAL PHENOMENA AND LAWS OF WEALTH

In the first subdivision fall those economic laws which do not depend upon organization or exchange, but which result from the nature of man and his relations to the physical universe. These laws may best be visualized by contemplating the interactions of man and nature when man is in a primitive, unorganized, unsocialized state. "In this mode of living," says Professor Clark,³ "which puts every man face to face with nature, there is room for the action of all of the more fundamental laws of economics. Here, for example, is a hunter in a primeval forest, converting the flesh of animals into food and their skins into clothing and shelter. He is creating something that can be defined as wealth. It has the essential marks that analysis detects in the wealth that crowds the shops of the modern city. The man uses capital, and includes in his equipment both the fixed and the circulating varieties of it. His consumption has its laws; and the chief of them is the one that calls for variety in the things consumed. He must not make and use too much of one kind of product and too little of another—he must guard against glutting some wants and letting others go unsatisfied, if the wealth that he creates is to do him much good."

In another connection he extended his analysis of this pre-exchange stage of economic development and specified some of the laws which operate in it. For example, he says⁴: "In every state of economic evolution wealth consists of useful material things; but their utility is of the kind that we may call *specific*. Each part of the supply has some importance attaching to it. . . . If the goods are of such a kind that by adding to the supply of them you make some one better off; and by taking away any of them you make him worse off, they are wealth. Outward material things that are appropriable and, in this specific way, useful, are economic goods. They are commodities, or concrete forms of wealth; and this description applies as perfectly to the canoe of the savage and its load of fish as it does to an Atlantic steamship and its rich and varied cargo."

² John Bates Clark, *The Distribution of Wealth* (New York: The Macmillan Company, 1899), pp. 33, 34.

³ *Ibid.*, p. 26.

⁴ *Ibid.*, p. 41.

On the following page he shows that the law of diminishing utility applies to wealth in all stages of development. "Give to a man one unit of the article A," he says, "and then another and another, till he has ten of them. While each of the articles in the series may do him some good, the amount of the benefit will steadily diminish, as the number grows larger, and the tenth one will benefit him least of all. In order to add to his stock of A, the man will never sacrifice more than what is, in his view, a fair offset for the benefit that he will get from the tenth and last unit."

"The primitive economy that we have imagined cannot test final utilities in a market, for it has no exchanges. Can it not, then, test them at all, and does it not find it necessary to do so? We may easily see that it does this, and that the purpose is exactly like that for which organized society makes the same test. The principle of final utility belongs in the first division of a theory of economics and has to be assumed in the second division."⁵

In like manner he shows that in the primitive pre-exchange economy as well as later, man gains by diversifying consumption and loses by diversifying his production.

"The industry of the savage state cannot carry the diversifying process far, because it cannot produce many kinds of goods. A man who should try to make many different kinds of articles entirely for himself would be jack of all trades, and would be so poor in most of them that he would lose as a producer more than, through diversity of the articles, he would gain as a consumer making a few things only. The savage can glut his desires for any one of them by an overproduction of it. The diminution in the utility of successive units of goods of one kind makes itself keenly felt, if he works too long in one occupation. If then, he has so much meat on hand that more will be of little use to him, he turns to hewing out canoes, fashioning bows and arrows, or building huts. Otherwise he will do nothing; since the utility of a further unit of an overproduced kind of wealth will not be enough to keep him working."

"The law of final utility fixed the point at which such a producer will stop creating one product and begin making another. A modern laborer, with money in his pocket, is supposed to consult the law of final utility in making purchases and to spend each dime where, in view of the supply of different things already on hand, it will do him the most good. The savage in our assumed case has, not dimes, but efforts to expend; and he directs the expenditure of them according to the same principle. When he has dulled the keenness of his desire for one thing, he makes another. While

⁵ *Ibid.*, p. 43

markets and prices are, therefore, modern phenomena, the study of which has no place in a division of the science devoted to universal truths, the law of final utility which directs the purchases that are made in a modern market also directs the production of the isolated man, and is a universal law of economics."

"Draw the line, then, between a theory of exchange economy, or catallactics, and a primitive economy that treats of actions and reactions between man and nature. On the one side of this line you will find markets, values and like phenomena; on the other side you will find those laws of consumption which govern values. In modern life these laws direct the social demand for different goods offered in the shops; but in primitive life they control the manner in which a man husband his productive power and uses it where it will do him most good. The law of final utility is common to both economies."⁶

C. SOCIAL STATICS

The characteristic phenomena of social statics are *exchange*, *distribution*, and *value*. In this stage of development, characterized by division of labor and exchange, all the laws that are operative in the pre-exchange stage also function; society diversifies its consumption and distributes its labor power in accordance with the same laws, but through a new mechanism, that of markets and values. In this stage "an oversupply of any one article in a market means a social glut of a specific kind. In such a case, the effective demand for this article in society as a whole is more than met. Then it is that, through the mechanism of a falling price, society is warned to turn its energies to the making of something else; and its whole procedure is nothing more or less than doing what an isolated man would do, if he found his want of one commodity becoming satiated."⁷

In this division of economics it is the duty of the economist to explain how and why division of labor and exchange developed and assumed their present forms and how under the conditions of socialized production thus brought about the social product is distributed among the members of the social group.

1. *Exchange Is the Socializing Element in Production.*

The terms *exchange* and *division of labor* describe the organized or social process of creating wealth. They are included in that division of economics which the older economists named "production."

⁶ *The Distribution of Wealth*, pp. 43, 44.

⁷ *Ibid.*, p. 45.

"The modern producer is a specialist, selling one article, or a part of an article, and buying what he needs with the proceeds. Only society in its entirety is an all-around creator of goods. This is equivalent to saying that social production is now accomplished by means of exchanges. The passing of goods from man to man enables all society to make all goods; and the two expressions 'division of labor,' on the one hand, and 'exchange,' on the other, merely describe in different ways the organized process of creating wealth, as contrasted with the method of isolated and independent production. . . . Society in its entirety is the one producer of wealth. Exchange is, then, the socializing element in production. It is a characteristic part of the comprehensive process."⁸

2. *Social Production Involves Value and Distribution.*

"Production by society as a whole . . . involves a fixing of values. If we part with our own products, something must decide how much we are to get in return for them."⁹ This "something," whatever it may be, operates through the mechanism of exchange and determines what Professor Clark calls "group distribution," that is, distribution between groups of industries engaged in the production of the various articles consumed by society. For example, by determining the ratio of exchange between bread, shoes, and all other finished commodities, it fixes the share of the aggregate social product that all the industrial, commercial, and other groups engaged in the production of bread, such as wheat-growers, threshers, merchants, millers, etc., receive, as well as that received by all those engaged in the production of shoes, such as cattle-raisers, butchers, tanners, leather merchants, shoe manufacturers, etc., and the shares of all other producing groups. The shares of each group thus determined are distributed among the sub-groups of which they are composed and finally among the laborers, capitalists, and entrepreneurs of which each establishment is composed.

Professor Clark illustrates the distributive process by the following:

"A'''	B'''	C'''
"A''	B''	C''
"A'	B'	C'
"A	B	C "

⁸ *Ibid.*, pp. 11, 12.

⁹ *Ibid.*

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A''', B''' and C''' represent finished commodities ready for consumption. A'', and A' and A are the subgroups engaged in the production of A''', and B'', B' and are those engaged in the production of B''', etc. He then adds: "The price of A''' fixes the size of its entire group income. The prices of B''' and C''' likewise fix the general incomes of the two groups that make them. Similarly, the difference between the price of A'' and that of A''' fixes the income of the sub-group that transforms the one article into the other. In this case the difference is the gross income of the baking industry." (A''' is bread and A'' flour.) "In the same way, the difference between the price of A' and that of A'' determines the income of the flouring industry, etc. *The income of each sub-group in the whole series then depends directly on prices.*"¹⁰

3. Natural Prices, Wages, and Interest.

The force which operates through these processes of social production and distribution and which in the last analysis determines prices and the incomes of the groups and sub-groups into which society is organized is the "efforts on the part of different men to get their natural shares of income."¹¹ They attain this end by shifting from the points where returns are lower to those where they are higher, with the result that in a static society returns finally are equalized throughout the entire field of social economic operations, each unit of labor and each unit of capital receiving identical amounts. The prices and returns to labor and capital under such conditions are characterized by Professor Clark as *natural* or *normal*. "Prices are at their natural level," he says,¹² "where labor and capital in one industry produce as much and get as much as they do in any other. Normal prices mean equalized wages and equalized interest." In another place he says:¹³ "A condition in which all things sell for the amount of money that they have cost—including interest and wages of management, as elements of cost—is a state in which the gross gains of the different industrial groups are brought to *pro rata* equality, that is, to a condition in which the returns of all groups yield the same amounts per unit of capital and also the same amounts per unit of labor. Cost prices, then, are those that give equalized earnings."

Professor Clark's main thesis in this division of the subject (social

¹⁰ *The Distribution of Wealth*, p. 15.

¹¹ *Ibid.*, p. 16.

¹² *Ibid.*

¹³ *Ibid.*, p. 17.

statics) are that when prices and incomes are normal or natural, labor and capital each gets what it produces and that the two together absorb the entire social income.

4. *Labor and Capital Get What They Produce.*

In his attempt to demonstrate this proposition Professor Clark considers labor and capital separately. Beginning with labor, he notes that in the price-making process it is the last unit of the supply that fixes the price of all other units. Wages being a special case or manifestation of this process, it follows that the last unit of the labor supply fixes the wages of all laborers. It is upon the valuation of these final or marginal units of labor, therefore, that attention should be concentrated in the search for the explanation of wages.

He next attempts to locate the field in which these marginal units function and finds it not simply on marginal land, where alone the classical economists located it, but spread throughout the entire field of production. "A part of the marginal field for labor is furnished," he says,¹⁴ "by the waste lands that are available for raising crops; but the part thus furnished is a nearly infinitesimal part of the whole field. A larger part is afforded by no-rent instruments of the other kinds; and still a larger part is created by putting the entire stock of rent-paying instruments into uses for which no extra rent is charged. There may be a thousand men in a modern and profitable mill; and out of the product that their labor and the mill itself create may be paid the rent of the mill. It may be that twenty more men might find places in this mill, and that their presence would result in a distinct addition to the daily product of it. It may be, also, that this entire extra product will go to the men as wages—that the owner of the mill will make no claim on it. If so, these marginal men will get their whole products and will be in reality as free from the claims of masters on their earnings as though they were tilling waste land by the sufferance of the owner, or were running an abandoned mill in which some proprietor might tolerate their presence."

"Here, then, is a marginal fraction of the supply of labor; and it would seem that it is in a position to set the market rate for all labor. Here, also, is a direct connection between the pay of this marginal part of the laboring force and the product that can be specifically attributed to it. Does this product of marginal labor set the standard of wages, as the price of a final increment sets the general standard of

¹⁴ *Ibid.*, pp. 93, 94.

value of commodities? If so, the law of wages would stand thus: (1) By a common mercantile rule, all men of a given degree of ability must take what marginal men of the same ability get. This principle fixes the market rate of wages. (2) Marginal men get what they produce. This principle governs wages more remotely by fixing a natural standard for them."

In further proof or illustration of these principles Professor Clark describes what he calls "the zone of indifference" that he thinks "extends through every group and sub-group into which industrial society is organized." This is "an area of uniform productivity for labor and of equal pay for labor, if competition works without friction." He describes it as follows¹⁵ :

"The terms 'zone,' 'area' and 'field' are figurative expressions; and what they really signify is opportunity to labor. A fertile piece of land or a well-equipped shop offers to a certain number of men an opportunity to work in a highly productive way. This best opening for work may be represented by the figure of a central circle in the universal field of employment. Additional men create less than did the original ones, because their opportunities are poorer; and this fact may be indicated by locating them, in imagination, on zones surrounding the central area. There is a series of such opportunities for labor; each of which is poorer than the preceding ones, and the last is poorest of all. It is this most sterile of the fields, openings or opportunities for labor that we describe graphically as an outermost zone within which men produce only their wages. This is the zone of indifference from an employer's point of view, because, if he sets men working within this area, he must give them all that they produce as wages. If one employer offers to them less than, by their productive power, they are worth, another will offer more, provided competition is perfectly free and efficient. Theoretically, there is competition between employers for every workman whose presence in an establishment affords to the owner any profit over what he pays to him; and the competition stops only when this profit is annihilated."

In addition to this zone of indifference, Professor Clark directs attention to the opportunity for the employment of more labor supplied by a change in the form of *capital goods*. Any amount of labor may find employment provided the forms of capital are properly adjusted, every increase in the labor supply involving either a change in the volume or in the forms of capital goods. He says¹⁶ :

¹⁵ *The Distribution of Wealth*, p. 110.

¹⁶ *Ibid.*, pp. 113, 114.

"The opportunity for employment, which has been described by the term 'zone of indifference,' consists in the liberty to use capital-goods, or concrete instruments of production, in ways that make them yield more than they already do. Taking the working equipment of the world as it stands, we may get something more out of it, if we spend more labor in using it. This is a different thing from getting more out of a given *capital* by a similar intensifying of labor. A mill with its machines as they stand can take more laborers than are now employed in it; but if the mill is worth a million dollars, that amount of capital is capable of employing a much larger number of marginal workers than the mill can use as it stands. The vast stock of working appliances that the United States possesses can enable more men to work than are now working; but sixty-five billion dollars not confined to these appliances, but free to invest themselves in any other things, could give openings to a much greater number of additional workmen. There is a radical difference between the margin of employment that is offered by a particular stock of *capital goods* and the one that is offered by a given *capital*."

"In many parts of the industrial field a few more men or a few less might be employed, in connection with the amounts of capital that are there already in use, and *without any change in the form of that capital*, . . . but there is no such limit to the number who can work with a fixed amount of capital, *if the forms of it can be varied to suit the number of the men*. If, whenever you added to the number of your workmen, you could instantly, and without waste, put your capital into new shapes that you might select, you might double, quadruple or octuple your force of men without adding to the amount of your capital as a whole. If, therefore, capital is not limited in its forms, the labor that can use it is not limited in quantity."

The capacity of capital, by changing its form, to adjust itself to the labor supply is one of the postulates of Professor Clark's reasoning, as is also the perfect mobility of labor, that is, its capacity to move freely from one industry to another—these two postulates being essential each to the other.

The complete statement of his theory of wages is¹⁷: "The pay of labor in each industry tends to conform to the marginal product of social labor employed in connection with a fixed amount of *social capital, as such*."

Fundamental in his discussion of the thesis that capital also gets what it produces and that interest is that product, is the distinction already noted between *capital-goods* and *capital*, the latter being con-

¹⁷ *Ibid.*, p. 116.

ceived as a fund embodied in the former. Another fundamental distinction, connected with this one, is that between *rent* and *interest*, the former being defined as the earnings of capital-goods and the latter as the earnings of capital. "Rent," he says,¹⁸ "is the aggregate of the lump sums earned by capital-goods; while interest is the fraction of itself that is earned by the permanent fund of capital." Rent and interest are thus conceived as interdependent—indeed, as the same thing viewed from different angles. "In a sense," he says,¹⁹ "interest depends on rent; it is total rent, reduced to a percentage of total capital. In another and deeper sense, rent is governed by interest; the amount that any one instrument earns depends on the number of such instruments that are in use. Increase the number of tools of any one kind, and the earnings of each will grow smaller; diminish the number, and the earnings of each will grow larger. The number of each kind of instrument that is naturally brought into use depends on the law of interest. The *capital* in one kind of tool, machinery, building, etc. is made to earn as large a percentage of itself as does the capital in another; and the number of each kind of capital-goods is so adjusted as to make it do so. This equalizing force determines the number of capital-goods of each kind; and this, again, governs the rent that they severally earn. . . . *Proximately, rent fixes interest.* Given a certain number of capital-goods of each kind, and what they earn is the amount that, by an arithmetical reduction, is converted into interest. *Fundamentally, interest governs rents.* Given a certain permanent fund of capital, and it is put into such forms that the rent secured by one concrete form, or capital-good, is as large a fraction of its value as is that secured by another."

Before presenting his proof of the proposition that interest is the product of capital, he deduces from the distinction drawn between capital and capital-goods the propositions that periods of production are connected with the latter and not with the former. "Capital-goods," he says,²⁰ "separate labor, in time, from the enjoyment that will be afforded when the particular things with which labor is now engaged shall be fully ripe for use; while capital, on the contrary, synchronizes labor and its fruits. We may measure a period of production by the interval which a particular capital-good thrusts between labor and its fruits. This is measuring it by the lapse of time between two different

¹⁸ *The Distribution of Wealth*, p. 124.

¹⁹ *Ibid.*, p. 125.

²⁰ *Ibid.*, pp. 127, 128.

subjective experiences—namely, the sacrifice from making a thing and the personal gain from using it. In another way, we may measure the period by the duration of the instrument itself; and, if it is a tool for aiding labor, we have to divide the life of it as we divide the life of a human being, into a period of growth and a period of maturity. There is a time when it is taking shape under the hands of workmen; and there is a later time when it is fulfilling its destiny by helping other workmen to produce.”

“Capital-goods follow one another in an endless succession, and each one has its day. Capital, on the other hand, has no periods. It works incessantly; and there is no way of dividing its continuous life, except by using arbitrary divisions, such as days, months or years. There is nothing in the function of it that can make a basis for such a division as we can trace in the life of capital-goods. Capital, as such, does not originate, mature and then exhaust itself, giving place to other capital. Goods do this but funds do not. No permanent capital ever ripens and begins to minister to direct wants; immaturity is of the nature of capital. Some raw materials, which are now capital-goods, do mature in this way; though in doing so they cross the division that separates producers’ wealth from consumers’ wealth; for when they are ripe and in use, they embody capital no longer.”

In connection with this discussion Professor Clark also treats of the relation between abstinence and capital, demurring at the outset to the identification commonly made between abstinence and “waiting for consumers’ goods, through the economic lifetime of particular instruments of production.”²¹ He claims that there is no such waiting, that consumers’ goods begin to flow as soon as capital comes into existence and continue in an endless stream. He compares the working of capital in the production of consumers’ goods to the flow of water into a reservoir from a stream at one end and over a water-wheel which turns machinery at the other. The action of the water-power on the wheel is continuous, and the change in the particles of water and the length of time required for a particle to pass from the entrance gate to the tailrace does not particularly concern the owner of the mill, who is interested in the maintenance of the power. No more do the changes in the form of the capital-goods in which the stream of capital is embodied and the length of time during which it remains in a particular form concern the economist, whose interest is centered in the functions and working of capital.

²¹ *Ibid.*, p. 130.

Abstinence, according to Professor Clark,²² is significant in connection with "the genesis of new capital." It "*originates* new capital: it diverts income in money from the expenditure that would secure goods for consumption to that which secures instruments of production. . . . Once the abstaining is done, no further diverting of income is involved. The keeping up of the series of capital-goods is, in a sense, automatic. The mill, the ship, etc. virtually replace themselves as they are worn out; and these facts signify that, in a static condition, capital-goods would be created forever in limitless variety and number, but that no capital would be created. No net addition to the fund of productive wealth could then be called into existence."

With the very idea of capital is associated that of production. Capital is productive power or force; capital-goods are the concrete forms through which this power or force operates. To create capital through abstinence is, according to Professor Clark, to exercise "the option of taking, as part of one's income," instead of "something that will give pleasure for a time and then utterly perish, . . . something that will never in itself give any pleasure, but that to the end of time will create, every year, a quantity of other things that will do so. It is nature, and not human institutions, that offers this choice. . . . It is the nature of the bow to add something to the hunter's product; and, moreover, it is the nature of it to add enough to the product to enable him to take time to make another bow, when the first one is worn out, and still have more game for his own use than he could have had otherwise. The laws of matter, in short, make capital productive. Being productive, it may make over its product to the owner directly or it may make it over to some one else, who will pay the owner for it. Paying interest is buying the product of capital, as paying wages is buying the product of labor. *The power of capital to create the product is, then, the basis of interest.*"²³

The proposition that periods of production are associated with capital-goods and not with capital is the basis of Professor Clark's criticism of Bohm-Bawerk's theory of interest. He denies that increasing the volume of capital lengthens the period of production as Bohm-Bawerk claims. Because, according to the argument outlined above, the life of capital is continuous and everlasting, capital-goods recreating themselves or their successors in a more or less automatic way, Clark

²² *The Distribution of Wealth*, pp. 133, 134.

²³ *Ibid.*, p. 135.

maintained that "we may thus go on adding tool after tool to our equipment, till we create the complicated mechanism with which society is now working; we may continue the process, and elaborate the mechanism without limit; but we shall have added not one day to the period that intervenes between the abstinence that created the first tool and the enjoyment that will mark the end of the productive action of the true capital that the first crude tool represents. There is, in fact, no such end; with a single bit of permanent capital launched upon its economic career, the lifetime of the capital, in the static state, is endless." ²⁴ He adds ²⁵ :

"Professor v. Böhm-Bawerk's view is that short periods are highly productive, that larger periods are less so, and that every addition to the average length of the periods adds less to the products of industry than did the preceding additions. In our view, also, the average length of such periods as we are now considering might conceivably be made either longer or shorter, without affecting either the quantity of capital in existence or the rate of its earnings; for the period connected with the duration of capital itself cannot be lengthened. Here is a dilemma. If we measure productive periods by the duration of true capital, they are endless. If we measure them by the lifetimes of particular capital-goods, they may be lengthened or shortened without affecting the rate of interest. The deeper fact in the case is, that the periods which are measured by the duration of capital-goods have no significance as affecting the amount of waiting for the pleasures of consumption that a capitalist is supposed to do. Once the series of capital-goods is created and set working, there is no further waiting to be done. In its permanent static function capital does not make any one wait, although in its origin it causes its creator and owner to begin a period of endless waiting. Abstinence, in short, means a perpetual surrender of something, and not a deferring of it."

In the final stage of his argument Professor Clark distinguished between the labor force of society and the concrete forms and persons in which it is embodied, describing the former as a permanent, self-perpetuating productive force like capital and the latter as changeable embodiments of this force, one generation succeeding another and one form of labor succeeding another much as one set of capital-goods succeeds another and one form of capital-goods takes the place of

²⁴ *Ibid.*, p. 137.

²⁵ *Ibid.*, p. 139.

another. "It is a striking fact," he says,²⁶ "that labor also is a permanent force—a fund of human energy that never ceases to exist and to act. Men are as perishable as are capital-goods, but labor is as permanent as is capital."

These two social funds of labor and capital constitute society's sole productive forces, and each is capable of adjusting itself, and constantly does adjust itself, in form to the other. "There are, then," says Professor Clark,²⁷ "two permanent entities combined in the industry of the world. The one is capital, or the wealth that continues forever by casting off and renewing material bodies—capital-goods. The other is labor which continues in a similar way. It is represented to-day by one set of men, and to-morrow by another. Both of these permanent agents of production have unlimited power of bodily transmutation: they are changing their embodiment every year and every day."

"Any increase or diminution in the amount of labor that is employed in connection with a given amount of capital causes that capital to change its forms. Where there is a capital of five hundred dollars for each worker, that fund is one set of forms; and where there is a capital of a thousand dollars per man, it is in a different set. Now, the labor changes its forms in the same way. The men who are working with the smaller capital perform one set of acts, and those who have the greater capital in their hands perform another set. Arts are always practised in new and changed ways, when capital multiplies itself and takes the shape of costly and elaborate machinery. That the relative *amounts* of labor and capital should change, means that the *forms* of both should change: it means that each agent must fit itself to the other's requirements."

Though acting in combination or in cooperation, each of these productive agents is responsible for a product which is attributed and attributable to it and which constitutes wages and interest respectively. "These incomes," he now attempts to prove, "are fixed by the final productivity of labor and capital, as permanent agents of production."²⁸ His method of proof consists in the assumption, now of a fixed fund of capital to which increments of labor are added one after the other, and now of a fixed fund of labor to which increments of capital are added one after the other. In each case the product of each succeeding additional unit of labor or capital is less than that of the

²⁶ *The Distribution of Wealth*, p. 157.

²⁷ *Ibid.*, pp. 158, 159, 160.

²⁸ *Ibid.*, p. 160.

preceding and that of the last or final unit determines the income of all the other units of the entire supply.

It must be remembered that it is a static standard of wages and interest that Professor Clark is seeking. He puts the problem as follows²⁹: "With a force of a thousand men, working for decade after decade, with neither diminution nor increase, and with a capital of a million dollars, sustaining itself also without deduction or enlargement, how large is the product that a unit of labor or a unit of capital will produce? The answer to this question, which furnished the law of wages and interest is: *These incomes are fixed by the final productivity of labor and of capital, as permanent agents of production.*"

The criterion by which the amount produced by a unit of labor and a unit of capital respectively is determined is the observation of how much the combined product would be *diminished* by subtracting now a unit of labor and now a unit of capital or *increased* by adding now a unit of labor and now a unit of capital.

He also claims that wages and interest may be treated as surpluses and measured by the differential principle as the classical economists measured rents. "Wages and interest," he says,³⁰ "though they are determined by the law of final productivity, are also capable of being measured exactly as ground rent has been measured. That is to say, the Ricardian formula, which describes what is earned by a piece of land, may be used to describe what is earned by the whole fund of social capital: all interest may be made to take the form of a differential gain, or a surplus. Again, the Ricardian formula may be employed to describe the earnings of the whole force of social labor; for wages in their entirety, are a differential gain. It is one of the most striking of economic facts that the income of all labor, on the one hand, and that of all capital, on the other, should be thus entirely akin to ground rent. They are the two generic rents, if by that term we mean differential products; and the earnings of land constitute a fraction of one of them."

He illustrates this aspect of the subject as follows³¹: "Call the product that the single worker creates, when he has the whole field to himself, P^{1st}. Call the additional product that the second man is able to bring into existence P^{2nd}, etc.; call the enlargement of the output made by the last man P^{10th}."

²⁹ *Ibid.*, p. 160.

³⁰ *Ibid.*, p. 191.

³¹ *Ibid.*, pp. 193, 194.

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" P^{1st} minus P^{10th} = surplus created by the first worker.

P^{2nd} minus P^{10th} = surplus created by the second worker.

P^{9th} minus P^{10th} = surplus created by the ninth worker."

"If we complete the series of such subtractions and add the nine remainders, the sum of them will be the rent of the piece of land. This is the amount the owner can keep, from the total created by the different workers aided by the land." He continues³²: "For a fixed area of land read, now, a fixed fund of permanent social capital. It is at this moment an exact sum; and it will, as it were, prolong the conditions of this moment, remaining at exactly its present size. . . . Introduce labor, increment by increment, into the general field of industry; and this, of course, compels such a change in the forms of the capital as we have already described. The amount of the capital remaining fixed, the instruments become more numerous and cheaper, as the force of labor enlarges.

"Labor, applied to the whole fund of capital, in land and all other instruments, is now subject to the law of diminishing returns," and the product of the last unit applied sets the rate of wages and there is a surplus product on each of the other units and these surpluses added constitute the income or rent of the entire fund of social capital.

"Reverse now the situation. Let labor be the fixed element and let social capital enlarge, changing its forms, in the enlarging.

"The effective importance of every one of the units of capital is the same. While capital-goods are not interchangeable, true capital is completely so; and all parts of it are, therefore, on a plane in their earning capacity. A merchant, a manufacturer or a farmer, if he can offer good security, can hire all the money that he needs at the rate that the least necessary sum which he invests in his business will earn for him."³³ According to the principle previously described, the product of the unit of capital least productively employed will set the income for every other unit, each of which, however, will produce a surplus which labor will get, and the sum of these surpluses constitutes "the rent of the force of laborers that is at work in connection with capital."

"*The rent of the labor*, if we use that expression, is the sum of the surplus products connected with the earlier units of capital but not attributable to them as a cause. The laborers seem to get a part of what the earlier units of capital produce; whereas, in reality, this is the dif-

³² *The Distribution of Wealth*, pp. 197, 198.

³³ *Ibid.*, p. 199.

ference between what capital and labor jointly produce and what capital alone contributes to the product of the combination."

He concludes as follows:

"One law governs wages and interest—the law of final productivity. By one mode of statement of the law, we get wages as an amount directly determined by this principle. . . . Arithmetically stated, the earnings of all labor equal the product of the final unit of labor multiplied by the number of the units. . . .

"By another mode of stating the law, we get interest as the amount that is positively fixed by the final productivity law, and wages are now the surplus that is akin to rent. These amounts together make up the whole static income of society."⁸⁴

Another phase of the problem of distribution, as Professor Clark conceives it, is the explanation of the earnings of industrial groups. This he finds in the doctrine of final utility modified by a conception of final increments of consumers' and producers' goods. The essence of this conception is that these final increments "consist rather of elements in goods than of goods in their entirety."⁸⁵ He says⁸⁶ :

"In pure theory, the statement of the vital fact of consumption should be this: Every article that a man buys for personal use contains a composite of elements, some one of which enters into his final increment of consumer's wealth. What a man does, as his means increase, is, before anything else, to demand new qualities in the articles that he uses. Often he does not add at all to their number; but he causes them to be made of finer material or to be larger or handsomer. He adds to his wealth for consumption, not new things, but new utilities; and these are mainly attached to things of the kinds formerly consumed."

"Capital increases in the same way. New units are added to producer's wealth more by improving capital-goods than by multiplying them. We infuse new wealth into the instruments in our hands by imparting to them new productive powers. We substitute a better tool for the one that we have been using, and it is the difference between the two tools that constitutes a final increment of capital."⁸⁷

*"It is final increments of wealth in commodities, and not, as a rule, commodities in their entirety, that furnish those test measures of utility to which market values conform."*⁸⁸

⁸⁴ *Ibid.*, p. 200.

⁸⁵ *Ibid.*, p. 218.

⁸⁶ *Ibid.*, p. 214.

⁸⁷ *Ibid.*, p. 217.

⁸⁸ *Ibid.*, pp. 219, 220.

In the processes by which prices are determined it is these final increments in the form of qualities of goods rather than complete goods that compete with each other. It is these that men arrange in series in determining how they will spend their incomes, and it is in competition for these that buyers and sellers fix the terms on which goods exchange for each other. "Every article, except one of the poorest and simplest kind, is a composite of different utilities, and can render various unlike kinds of service at once. It is only for the sake of these services that it is wanted or bought. . . . Commercial dealing has its way of measuring the importance of each specific service that an article can render, and of fixing the value of it so as to make it express these measures. In every such commodity there is a marginal utility, and this is the only one that counts in fixing the price of it. Every commodity, except the poorest and cheapest that can be made, is, in effect, such a bundle of service-rendering elements as we have described. The marginal element in the bundle has a direct influence on prices, but the other elements have none."³⁹

According to Professor Clark, therefore, each commodity, for valuation purposes, should be looked upon as a bundle of utilities, each one of which is valued separately upon the market in accordance with the marginal utility law. The poorest of its kind may possess only one utility, but in each of the better ones there is some added utility or utilities—in the best, perhaps, several. To some groups of persons each of these utilities is final in the sense that it characterizes the highest grade or quality of that category of commodity for which any member of the group will compete, and it is the competition for that final quality or utility among members of the group that determines the value of the commodity on the market.

Professor Clark illustrates⁴⁰ his argument by the case of a canoe, which may be a composite of the following qualities or utilities:

"(1) Power to keep a man afloat. A dead tree would have this quality.

"(2) Power to carry a man across stretches of deep water. A smooth log could render this service.

"(3) Power to keep an occupant dry and comfortable, and to carry his effects. A dugout would do this.

"(4) Power to move swiftly and to ride waves safely. A well-made sailing canoe would do this.

³⁹ *The Distribution of Wealth*, p. 237.

⁴⁰ *Ibid.*, pp. 238, 239.

"(5) Power to gratify the owner's taste. A gracefully shaped vessel, with appropriate colors and fittings, does this."

"Figuratively speaking, in a very good canoe there are a dead tree, a log, a dugout, a convenient sailing boat and an elegant one," but "only the last of these qualities is, in the economic sense, a final utility."

On the market these different utilities are separately valued, and in any given canoe the final one added determines the price in the following manner ⁴¹:

"If the decoration of this vessel cost thirty dollars, the fisherman would buy a less ornate canoe. The demand for decorated vessels would thus be reduced, and the demand for vessels of the less ornate type would be increased. More canoes of the inferior kind would be made, and there would be fewer of the superior kind. . . . As many canoes would be made as before, but they would be without the special decoration that constitutes the final utility in the canoes of the highest quality. In canoes costing seventy-five dollars, this utility is clearly the only one measure of which is a gauge of the price.

"How, then, do the other utilities in the boat get their market valuation? There is a class of persons to whom the fourth utility in the canoe, its speed, is the final one. They buy boats of the fourth grade instead of those of the fifth, doing without the decorations. The amount that these men spend, in order to insure a boat that will sail by some points faster than another would do, yields to them, in pleasure, a result that is worth just what it costs. The floating power of the boat and its other intramarginal qualities are, however, worth to them more than they cost—they yield a 'consumer's rent,' or a gain that exceeds the gain that can be had by a marginal purchase. To this class of men, therefore, only the fourth quality in the canoe is a price-making one. In consequence of the demand of this class of persons, this utility may bring twenty dollars in the market."

"The law of final utility works as it would if each service-rendering power possessed by the boat was a distinct article. To all intents and purposes, the different utilities are different articles tied in bundles, some of which contain all five of the articles, some four, some three, etc. To no one consumer are all these virtually different things final utilities. A bundle, *as a whole*, is never a final unit of any one's consumer's wealth; but each element in it is a final utility to some class, and it is that class only whose mental estimate of it fixes its price."

Professor Clark characterizes this process of valuation as *social*. "Things sell, indeed," he says,⁴² "according to their final utilities; but

⁴¹ *Ibid.*, pp. 240, 241.

⁴² *Ibid.*, pp. 243, 244.

it is their final utilities to *society*. In the social body as a whole, every utility in a costly article is somewhere in the position of a final utility. . . . When fine articles—composite things, bundles of distinct elements—are offered to society, the great composite consumer, each element has somewhere in the social organism the effect of fixing a part of the total value. In no other way can the article, as a whole, get a valuation. To no individual are all its utilities final.”

This principle of “analytical valuation,” as Professor Clark calls it, applies to producers’ goods as well as to consumers’ goods. He says ⁴⁸ :

“The earning power of capital is fixed by the productivity of the final increment of it; and the final increment of capital does not, as a rule, consist of instruments of production in their entirety. It consists of *elements* in such instruments.”

“It is final increments of capital, as such, the productive power of which fixes the rate of interest. As *entrepreneurs*, we must pay for any capital that we hire what a final increment of it will produce; and that is what we and others can get, as a net addition to our products, by making our buildings by one degree longer or more substantial, our machines by one degree more rapid or more nearly automatic, our engines or our water-wheels by one degree more powerful, our raw materials by one degree finer, etc.”

“We affirm that interest is fixed by the earning power of the final increment of social capital; that that increment consists mainly of qualities of instruments of production, rather than of instruments in their entirety; that competition acts as a leveler, causing the earning power of such final productive elements in capital-goods to tend toward a certain normal level; and that any kind of instruments in which this element earns less than the standard amount must be thrown out of use.”

“If this is so, it is clear how far from being true is the conception of capital as existing, in bodily shape,—a stock of concrete instruments,—in the midst of competing *entrepreneurs*, and as ready in that shape to be drawn to this one or to that one, according as the one or the other offers the most for it. Capital is, in just this way, the subject of competition; but capital-goods are not. The capital that is competed for does not consist in instruments—concrete, visible, movable and ready for any of a dozen different uses: there is no stock of capital-goods that has such adaptability that all *entrepreneurs* are anxious to get shares of it. Yet there is a universal competition for capital, and the effect of it is to fix the rate of interest. Any *entrepreneur* in the entire system of social industry is a possible demander for any capital existing in the system. If he can make more with it than the present holder of it can make, his natural course is to bid higher

⁴⁸ *The Distribution of Wealth*, pp. 246, 247, 255, 256, 257.

for it than the present holder will bid and thus to secure it. No *capital*, as such, is fastened to one user or to one place in the system. Yet the goods that embody the capital are as fettered in their movements as the capital itself is free."

The social processes of production and distribution, as Professor Clark conceives them, include (a) the increase of capital by qualitative increments; (b) the increase of labor as a result of the increase of population, and a qualitative change in it as new generations train for different tasks from the old; (c) the constant adjustment of the forms of capital-goods and labor to each other; (d) capital-goods constantly reproducing themselves; and (e) the valuation of consumers' and producers' goods and labor in accordance with the law of "final utility" and the "analytical valuation."

Under the régime of division of labor, specialization in production, and exchange, capital and labor are apportioned among the different groups by a social law which in a static state results in the equalization of the incomes of each unit of capital and labor throughout the entire field of social production. This law is stated as follows⁴⁴: "Labor moves to and fro, seeking the points where it can produce and get the most wealth. What capital may get at the different points is not an influence that appeals to labor, for wages only are what labor is seeking. Capital, likewise, moves to and fro in the group system seeking out the points where it can get the most interest. So far as motives are concerned, each of these agents is independent of the other." These movements of labor and capital are controlled by "the universal law of economic variation. It acts in consumption; and when it operates upon a fixed number of persons, it causes an increasing amount of consumers' wealth to have less and less specific utility. That law thus regulates values; for goods bring smaller prices, the more there are of them. The law acts also in production, causing an increasing amount of one industrial agent, when it is used in connection with a fixed amount of another agent, to have per unit less and less productive power. Labor, for example, in connection with a fixed amount of capital, produces fewer and fewer goods per unit, the more there is of it. The law has to act in both these ways, in order to apportion labor and capital, in natural amounts, throughout the industrial system. The general law that, on the one side, fixes values and on the other side, fixes power to produce goods thus has a two-fold effect; and the out-

⁴⁴ *Ibid.*, pp. 277, 280, 282

come of it all is that a unit of labor tends, under perfect competition, to have as large a power to produce value in one part of the system as it has in another. A unit of capital shows the same tendency."

While the motives of the movements of labor and capital are independent, "their movements are interdependent, since neither of them can move without changing the productive power of the other."

The apportionment of labor and capital among the industrial groups in accordance with the laws above described synchronizes production and consumption. When this apportionment is perfect, capital goods flow in a continuous stream through the various ranks and into the reservoir of consumers' goods. There is no waiting; neither are there any advances (in the proper sense of that term) by the producers of consumers' goods to the groups engaged in producing the various ranks of producers' goods. An advance implies the lowering of a stock and its replenishment at a later time, and there is nothing of this kind going on in a static society in which labor and capital have been properly apportioned. On the contrary, there is a continuous flow of raw materials entering at one end of the line and consumers' goods emerging at the other in a continuous stream. The reservoir of consumers' goods is drawn upon by each unit of capital and labor according to its relative value.

In Chapter XX, in which Professor Clark discusses this subject, he associates the waiting and abstinence involved in "round-a-bout" methods of production with the origin and increase of capital goods and again emphasizes the proposition, expounded in earlier chapters, that capital is a continuous and everlasting fund of productive power or energy. He says ⁴⁵ :

"Tools are productive, but time is the condition of getting tools—this is the simple and literal fact."

"The first tool that is made separates work from its fruit—makes the men wait for what they want, and every added tool means more waiting. Every addition in days of labor to the cost of a tool extends the interval of time that thrusts itself before the enjoyment that is to come. The mass of raw material and enginery by which a modern society produces is the enormous wedge that civilization has driven between labor and products. It is solidified time, or the material result of waiting on a vast scale. It is the visible testimony to the fact that some one's labor for present fruits began far back in the past."

"Capital-goods imply waiting for the fruits of labor. Capital, on the

⁴⁵ *The Distribution of Wealth*, pp. 309, 311.

contrary, implies the direct opposite of this: it is the means of avoiding all waiting. It is the remover of time intervals—the absolute synchronizer of labor and its fruits. . . . The very appliances which, in their extent and complexity, seem in one view to mean endless waiting, in another view mean no waiting at all but the instantaneous appearance of the final fruits of every bit of labor that is put forth.”

The marginal productivity theory of wages and interest raises another question which Professor Clark answers in Chapter XXI, entitled “The Theory of Economic Causation.” It is this: Does not this theory imply that all except marginal laborers and marginal capitalists are exploited? Do not these get less than they produce? Professor Clark’s answer, which is in the negative, is based upon the principle previously explained, that the forms of labor and capital must adapt themselves to each other and that a given amount of capital in adapting itself to a larger amount of labor less adequately equips each laborer and thus reduces the productivity of him and his equipment combined; in adapting itself to a smaller amount, it more adequately equips each laborer and thus increases the productivity of him and his capital equipment combined. What now is the cause of the decreased product in the one case and the increase in the other? Obviously the poorer capital equipment in the one case and the better in the other. In other words, these changes in productivity of the labor units are due to capital and not to labor. As Professor Clark puts it ⁴⁶ :

“(1) The difference between what the first division of workers created by the use of the whole capital and what they now create is an amount that is solely attributable to the extra capital they formerly had. (2) The difference between what one increment of labor produced, when it used the whole of the capital, and what two increments are now producing, by the aid of that same amount of capital, is attributable solely to the second increment of labor. We have, in this way, tested the specific productivity of a certain amount of capital, and we have also tested the specific productivity of one unit of labor.”

“It is with the latter test that we are immediately concerned; and what we have been careful to guard against is the notion that, at any one time, there is a difference between the products of different units of labor, as such. Each of them, with its share of the capital, produces one-half of the whole present output of the industry; but a half of the present output is less than was the whole output, when only one man was working with the aid of the entire capital. This reduction measures the product of one-half of the

⁴⁶ *Ibid* pp 325, 326.

capital, as used by one unit of labor. On the other hand, the whole product, now that the two units of labor are working, is greater than was the whole product with one working; and this addition to the product is due solely to an accession of labor. The amount of the addition measures the product of that labor and of all labor under the present changed conditions."

D. SOCIAL DYNAMICS

In this division of theory belongs the treatment of changes in the forms and modes of social activity, such as increasing population, increasing capital, changing industrial methods, changing modes of organizing labor and capital for purposes of production, and multiplying and refining human wants. "The first step" in dynamic economics, says Professor Clark,⁴⁷ "is to examine each of these changes separately, in order to see, first, how it causes actual values, wages and interest to differ from static standards, and, secondly, how it causes the standards themselves to change. It remains for dynamic theory to show what happens when all these changes go on together."

The changing of static standards of value, wages, and interest Professor Clark considers one of the most important results of dynamic movements. How these are brought about he illustrates⁴⁸ by showing the effect of improvements in the methods of production.

"It [an improvement] first gives a profit to *entrepreneurs* and then, in the way that we have described, adds something to wages and interest. This is equivalent to creation of new wealth. It has made a definite addition to the income of society, and from the moment when the improved methods have been put into operation the static standard of wages has been higher. The rate toward which the pay of labor is now tending is not what it was before the invention was applied, but it is a new and higher rate. Wages now tend to equal what labor can now produce and this is more than it could formerly produce. When the full fruits of this invention shall have diffused themselves throughout society, the earnings of labor will equal the new standard rate."

"Let another invention be made that also effects an economy in production. It also creates a profit; and this profit, like the first, is an elusive sum, which *entrepreneurs* grasp but cannot hold. This sum, like the former one, slips in time through their fingers and bestows itself on all members of society."

"If, instead of occurring at intervals considerably separated, the im-

⁴⁷ *The Distribution of Wealth*, p. 404.

⁴⁸ *Ibid.*, pp. 405, 406.

provements in industrial methods were continually taking place,—if one followed another so closely that, when the second occurred, the fruits of the first were only beginning to make their impression on the earnings of labor,—then, as a result, we should have the standard of wages moving continuously upward and actual wages steadily pursuing the standard rate in its upward movement, but always remaining by a certain interval behind it.”

“This process represents the actual condition of industry.”

The theory of economic dynamics thus has to deal with a new distributive share, namely profits, which owes its existence to the fact that, as changes take place, the new static standards of wages and interest (which distribute the entire income between laborers and capitalists) cannot immediately establish themselves because of friction. “If competition worked without let or hindrance,” says Professor Clark,⁴⁹ “pure business profit would be annihilated as fast as it could be created—*entrepreneurs*, as such, could never get and keep any income.”

Profit is, therefore, the result of change. It is a dynamic income. It is also in turn, according to Professor Clark, the cause of change. “Profit,” he says,⁵⁰ “is the source that insures improvement, and improvement is the source of permanent additions to wages. To secure progress, this lure must be sufficient to make men overcome obstructions and take risks. The difference between the actual pay of labor and the rate toward which, at a particular date, it tends, measures the incentive that is offered to the men who make progress possible. Because to-day laborers are not getting the fruit of the improvement that was made yesterday, employers can get something; and because they can make something transiently for themselves, they make permanent additions to wages.”

According to Professor Clark, therefore, dynamic forces tend constantly to improve the condition of the laboring classes. Capital, he thinks, is bound constantly to increase under the influence of the lure of profits and of the desire for an assured regular income in face of a declining rate of interest. The strength of the desire to maintain a rising standard of living and a rising social status will, he thinks, curb the sex instinct to such a degree as to ensure a rate of increase of population lower than that of capital and consequently to ensure the desired rate of increase in the standard of life or an approximation to it.

⁴⁹ *Ibid.*, p. 410.

⁵⁰ *Ibid.*, p. 411.

Many of the variations from static standards of value, wages, and interest which the separate operation of each dynamic force is likely to produce, Professor Clark thinks, will be neutralized when they operate, as they normally will, simultaneously and in conjunction with each other. The conditions which he has described as natural under the operation of static forces, therefore, will be more closely approximated in the world of actuality than to a superficial view might seem possible. He also emphasizes the constancy of the operation of these static forces even under dynamic conditions. They are never inactive, and the maximum influence of the dynamic forces will be to render the realization of static standards *proximate* instead of 100 per cent.

Two of these forces, however, may cause trouble and interfere with the optimistic outlook which Professor Clark's reasoning up to this point seems to him to justify. One is the influence of backward countries upon the more advanced and the other is monopoly, which weakens, and possibly may annihilate, competition. The operation of the economic forces which Professor Clark has described is much less perfect in backward than in advanced countries, with the result that intercourse between the two regions may threaten, temporarily at least, the progress of the laboring classes which Professor Clark thinks is to be expected in the advanced group. Labor with lower standards of life is likely to flow from the less to the more advanced countries, while capital will flow in the opposite direction, thus narrowing the field of employment and increasing the numbers of the laborers in the latter and widening the field of employment and diminishing the number of laborers in the former. The net result may be advantageous to labor the world over but disadvantageous to the laboring classes of the advanced group.

In his earlier work on *The Philosophy of Wealth* Professor Clark pictures competition as a rapidly weakening force destined, perhaps, to disappear, but his entire process of reasoning in his later work is based upon the assumption that competition not only operates but that its operation is beneficent. Regarding this point he raises the question⁵¹: "Have we, then, completed the theory of competitive distribution, only to find that the fact on which the whole of it is predicated has ceased to be?" His reply is: "it remains for economic dynamics to show that competition is an inextinguishable force."

⁵¹ *The Distribution of Wealth*, pp. 440, 441.

CHAPTER XXVI

ALFRED MARSHALL

In some respects Alfred Marshall's relation to his generation was similar to that of John Stuart Mill's to his. Like Mill, he attempted to bring the science up to date and like him he built upon classical foundations. He resembled Mill also in his humanitarian spirit and in his desire to improve conditions, especially the standard of life of the laboring classes. While not quite so close, his relation to Mill was not unlike Mill's relation to Ricardo. His *Principles*, like Mill's, was also the most widely approved and the most influential treatise on economics published in England in his generation.

Marshall's training and background, however, were quite different from Mill's. He attended the Merchant Tailors' School in London, graduated at Cambridge with high honors in mathematics, and during the greater part of his active life was a teacher, from 1877 to 1885 at Bristol and Oxford and, from 1885 to the date of his retirement in 1908, at Cambridge, where he held the professorship of political economy. From the date of his retirement to that of his death in 1924 he worked in the Cambridge environment. He was also deeply religious, up to the close of his university career having intended to take holy orders in the Anglican Church. Mill, it will be remembered, never attended any school or university, having been trained by his father during the period when most youngsters attend school. He was a business man and a publicist instead of a professor, and he claimed that he was one of the few men who never had religion of any kind.

There is an interesting connection between Marshall's abandonment of his early intention to enter holy orders and his later interest in economics. After his graduation at Cambridge, association with such men as T. H. Green, F. D. Maurice, W. K. Clifford, and Henry Sidgwick interested him in philosophical studies which, together with Darwin's *Origin of Species*, unsettled his mind on theological topics and seriously disturbed his early religious convictions. They did not, however, change his fundamentally religious nature or weaken his interest in humanity. Their ultimate result was to turn his attention

to the study of social ethics and economics as means to the improvement of the conditions under which men live. Marshall's humanitarian interests were basic not only among the influences which turned his attention from mathematical and philosophical studies to economics but in determining the brand of economics he produced. His primary interest in all his writings and studies on economic subjects was to make the science a useful instrument of social amelioration and progress. Economic theory and principles were to him means to practical ends and not ends in themselves.

In order to understand Marshall's economics one must also remember that, when he began to give serious attention to the subject, the classical school was under fire from many quarters and had already suffered a serious decline in influence, even in England, the place of its origin and development. To the critics described in Part III of this treatise must be added Cliffe Leslie, Arnold Toynbee, and Jevons, the two former strongly presenting the attitude of the German Historical School and the latter that of the Austrians, so far as the general subject of value is concerned, though developed quite independently of and contemporaneously with Menger's earliest work. Later on Marshall followed closely and sympathetically the development of the Austrian School, though, as we have seen, he was critical of some aspects of its work. Marshall was also greatly impressed by the complexity of contemporary economic life and by the difficulty of the problem of utilizing economic doctrines and laws in its explanation.

His principal writings in book form are a little volume published in 1879, in the preparation of which his wife collaborated, entitled *The Economics of Industry*, a new edition of which appeared in 1899 with the title *Elements of Economics of Industry*, Volume I of *Elements of Economics*; his well-known treatise entitled *Principles of Economics*, first published in 1890 and followed by other editions in 1891 and 1898; *Industry and Trade*, published in 1919; and *Money, Credit, and Commerce*, published in 1920.

A. THE GOAL AIMED AT IN THE "PRINCIPLES"

In the preface to the first edition of his *Principles of Economics* Marshall described his goal in the following words¹: "The present treatise is an attempt to present a modern version of old doctrines with the aid of the new work, and with reference to the new problems,

¹ Alfred Marshall, *Principles of Economics*, 2d ed. (London: Macmillan & Co., 1891), p. ix.

of our age." The old doctrines to which he refers are those of the classical school, which he thought had in the main survived the attacks made upon them. "Some of the best work of the present generation," he said,² "has indeed appeared at first sight to be antagonistic to that of earlier writers; but when it has had time to settle down into its proper place, and its rough edges have been worn away, it has been found to involve no real breach of continuity in the development of the science. The new doctrines have supplemented the older, have extended, developed and sometimes corrected them, and often have given them a different tone by a new distribution of emphasis; but very seldom have subverted them."

B. GUIDING PRINCIPLES

1. "*The Principle of Continuity.*"

In expounding the results of the supplementing, extending, developing, and correcting of the old doctrines by the new and of the new distribution of emphasis, Professor Marshall tells us that he was guided by certain principles, the first of which he called the "Principle of Continuity." He nowhere describes this principle in formal terms, but he illustrates its application in a number of ways, as the following will show.

(a) *The relativity of "normal" action.* He conceives of normal economic action as "that which may be expected, under certain conditions from members of an industrial group."³ Such groups may be and are influenced by a complex of motives which may vary from group to group and from time to time. No sharp line of distinction can be drawn between normal and what for the time being or for the case in hand may be regarded as abnormal action. There is a gradual gradation from one to the other. "Thus," he said,⁴ "stress is laid on the fact that there is a continuous gradation from the actions of 'city men,' which are based on deliberate and far-reaching calculation, and are executed with vigour and ability, to those of ordinary people who have neither the power nor the will to conduct their affairs in a business-like way. The normal willingness to save, the normal willingness to undergo a certain exertion for a certain pecuniary reward, or the normal alertness to seek the best markets in which to buy and sell, or to search out the most advantageous occupation for

² *Ibid.*

³ *Ibid.*, p. x.

⁴ *Ibid.*, p. xi

oneself or for one's children—all these and similar phrases must be relative to the members of a particular class at a given place and time; but, when that is once understood, the theory of normal value is applicable to the actions of the unbusiness-like classes in the same way, though not with the same precision of detail, as to those of the merchant and banker."

(b) "*Normal*" and "*market*" values. He shows also that "there is no impossible gulf" between "normal" and "current," "market," or "occasional" values; that "they shade into one another by continuous gradations"; that "the value which we may regard as normal if we are thinking of the changes from hour to hour on a Produce Exchange, do but indicate current variations with regard to the year's history; and the normal values with reference to the year's history are but current values with reference to the history of the century."⁵

(c) *Rent and interest; fixed and circulating capital; land and other rents*. He saw a third illustration of his principle in the features common to rent and interest,⁶ to rent on land and other rents, and to fixed and circulating capital. The distinction between rent and interest depends to a great extent, he thought, "on the length of the period which we have in view, . . . that which is regularly regarded as interest on 'free' or 'floating' capital or on new investments of capital" being "more properly treated as a sort of rent . . . on old investments of capital." He also thought that there is "no sharp line of division between floating capital and that which has been 'sunk' for a special branch of production, nor between new and old investments of capital, . . . each group shading into the other gradually"; and that rent on land is merely "the leading species of a large genus."

(d) *The value of labor and of its products*. He further illustrated the principle by the identity in fundamentals between the theory of the value "of labour and of the things made by it." These he affirmed "cannot be separated; they are parts of one great whole; and what differences there are between them even in matters of detail, turn out on inquiry to be, for the most part, differences of degree rather than of kind."⁷

This principle of continuity made Marshall wary of carefully worked-out definitions and classifications, "about which a number of

⁵ *Principles of Economics*, pp. x, xi.

⁶ *Ibid.*, p. xii.

⁷ *Ibid.*, pp. xii, xiii.

short and sharp propositions could be made." The temptation to make these in the interests of "logical precision" and because of the "popular liking for dogmas that have the air of being profound and . . . yet easily handled," he thought, often resulted in "drawing broad artificial lines of division where Nature made none." He concludes that "The more simple and absolute an economic doctrine is, the greater will be the confusion which it brings into attempts to apply economic doctrines to practice, if the dividing lines to which it refers cannot be found in real life. There is not in real life a clear line of division between things that are and are not Capital, or that are and are not Necessaries, or again between labour that is and is not Productive."⁸

2. *The Principle of "the Marginal Increment."*

He tells us that he was also guided by the principle of the "marginal increment" which he thus describes⁹: "Under the guidance of Cournot and in a less degree of von Thünen, I was led to attach great importance to the fact that our observations of nature, in the moral as in the physical world, relate not so much to aggregate quantities, as to increments of quantities, and that in particular the demand for a thing is a continuous function, of which the 'marginal' increment is, in stable equilibrium, balanced against the corresponding increment of its cost of production."

He makes considerable use of mathematical formulæ and more of diagrams, but he has the following to say concerning these instrumentalities¹⁰: "The chief use of pure mathematics in economic questions seems to be in helping a person to write down quickly, shortly and exactly, some of his thoughts for his own use; and to make sure that he has enough, and only enough, premises for his conclusions (i.e., that his equations are neither more nor less in number than his unknowns). But when a great many symbols have to be used, they become very laborious to any one but the writer himself. And though Cournot's genius must give a new mental activity to everyone who passes through his hands, and mathematicians of calibre similar to him may use their favourite weapons in clearing a way for themselves to the centre of some of those difficult problems of economic theory, of which only the outer fringe has yet been touched; yet it seems

⁸ *Ibid.*, p. xiii.

⁹ *Ibid.*, p. xiv.

¹⁰ *Ibid.*, p. xv.

doubtful whether any one spends his time well in reading lengthy translations of economic doctrines into mathematics, that have not been made by himself."

C. USE OF THE DOCTRINE OF DEMAND AND SUPPLY

In the arrangement of the subject-matter of his treatise and in much of his reasoning Professor Marshall has been guided by the law of demand and supply, which may be regarded as the key to his system. Generally speaking, it may be said that his treatise is devoted to an analysis and explanation of demand and supply and their mutual relations. In working out the manner in which equilibrium between demand and supply is established, he makes wide use of the concepts "normal value," "normal action," and "representative firms." The formulation, definition, and application of these concepts illustrate the principle of continuity as he has explained it in the passages above quoted. They do not have a fixed and unchanging content but are relative to the varying conditions of time, place, and personalities involved.

The doctrine of demand and supply determines not only his general scheme of arrangement of chapters but also his method of approach to many of the subtopics. For example, his chapters on "Demand," "Supply," and the "Theory of the Equilibrium of Demand and Supply" are followed by a book entitled "Value or Distribution and Exchange," the principal subtitles of which are "Demand and Supply in Relation to Labor," "Demand and Supply in Relation to Capital," "Demand and Supply in Relation to Capital and Business Power," and "Demand and Supply in Relation to Land."

The doctrine of demand and supply in Marshall's system is much more than a mere matter of form and a method of approach to the problems of the science. To his mind it furnishes the key to the solution of the most fundamental of them. "In spite of a great variety in detail," he says,¹¹ "nearly all the chief problems of economics agree in this that they have a Kernel of the same kind. This Kernel is an inquiry as to the balancing of two opposed classes of motives, the one consisting of desires to acquire certain new Goods, and thus satisfy Wants; while the other consists of desires to avoid certain Efforts or retain certain immediate enjoyments or other Goods, the command over which has already been acquired; in other words it is an inquiry

¹¹ *Principles of Economics*, p. 383.

into the balancing of the forces of Demand and Supply, these terms being used in their broadest sense."

In his exposition of this important doctrine he first differentiates and describes the forces comprehended by the terms *demand* and *supply*, availing himself in the former case of the Austrian analysis with its concepts of utility and marginal utility, its law of satiable wants or diminishing utility, its principle of the discounting of future pleasures, its demand schedules, etc.; and in the latter case of the doctrine of marginal disutility, of the laws of increasing and diminishing returns in agriculture, of the Malthusian doctrine of population, of the doctrine of abstinence in its relation to the supply of capital, and of the division of labor and industrial organization and management in their relation to the productive efficiency of the factors of production. He then expounds his theory of the equilibrium of demand and supply in a book which contains his most characteristic work.

These chapters illustrate the manner in which he combines and utilizes the old theories and the new. The new theories, especially those of the Austrians, are, according to his view, valuable in, and are used by him in, the explanation of demand, and the old doctrines in the explanation of supply and of the equilibrium between demand and supply. His own originality and his contribution to the science consist in the manner in which he has defined these laws and principles, especially the old classical ones, and explained their operation, and in the limitations he has placed upon them.

Demand and *supply* to him are collective terms comprehending two great groups of opposing economic forces seeking a state of equilibrium with each other. These complexes change from time to time and from one group of men to another and in such a manner that they are not absolutely and totally different but gradually blend into each other by small, sometimes almost imperceptible, changes. Sharp lines of distinction can therefore rarely, if ever, be drawn between them. The equilibrium between these two complexes is rarely, if ever, an exact balance but a more or less close approximation.

Like *demand* and *supply*, *cost of production* in his usage is a collective term meaning sometimes the expenses of production as the entrepreneur comprehends them and sometimes the sacrifices of production to marginal producers or to society. The items comprehended under *expenses of production* are changeable and are sometimes viewed in a narrower and sometimes in a broader sense, as are also the

sacrifices of production. The principle that *cost of production* in some one of these different senses constitutes the equilibrium point between demand and supply means not that such an equilibrium point is ever actually attained, but that in a rough sort of a way the expenses or the sacrifices of production, in some sense of those terms, acts more or less, and under different conditions in all degrees of more or less, as a sort of lodestone to the forces of demand and supply.

Some extracts from and paraphrases of portions of the closing chapter of his book, dealing with the "Theory of the Equilibrium of Demand and Supply," in which he summarizes the detailed discussions of previous chapters, will illustrate his methods and his results.

"The difficulties of the problem," he says,¹² "depend chiefly on variations in the area of Space, and the period of Time over which the Market in question extends; the influence of Time being more fundamental than that of Space."

Beginning "with a market for a very short period, such as that of a provincial corn exchange on market-day," he finds that "the 'higgling and bargaining' might oscillate about a mean position, which would have some sort of right to be called the equilibrium price; but the action of dealers in offering one price or refusing another would depend little, if at all, on calculations with regard to cost of production. They would look chiefly at present demand on the one hand, and on the other at the stocks of the commodity already available. It is true that they would pay some attention to such movements of production in the near future as might throw their shadow before; but in the case of perishable goods, they would look only a very little way beyond the immediate present. Cost of production has for instance no perceptible influence on the day's bargaining in a fish market."

He passes from these "temporary equilibria to the stable equilibria of normal demand and normal supply" and remarks "that in the language both of professed writers on economics and men of business, there is much elasticity in the use of the term *normal* when applied to the causes that determine value," but that "there is one division which, though it has no sharp outlines, is yet fairly well marked." That is the division between (a) "long periods, in which the normal action of economic forces has time to work itself out more fully; in which therefore a temporary scarcity of skilled labour, or of any other of the agents of production, can be remedied; and in which those economies that normally result from an increase in the scale of production—

¹² *Principles of Economics*, Ch. XIV, p. 528 sq.

normally, that is without the aid of any substantive new invention—have time to develop themselves”; and (b) “periods of time long enough to enable producers to adapt their production to changes in demand, in so far as that can be done with the existing provisions of specialized skill, specialized capital, and industrial organization; but not long enough to enable them to make any important changes in the supplies of these factors of production.”

In case (a) he takes as his “standard for estimating normal expenses of production” “a Representative firm, managed with normal ability and having normal access to the Internal and External Economies of production on a large scale” and concludes that “when the period under survey is long enough to enable the investment of capital in building up a new business to complete itself and to bear all fruits, then the marginal supply price is that, the expectation of which in the long run just suffices to induce capitalists to invest their Material capital, and workers of all grades to invest their Personal capital in the trade.” In case (b), “the stock of Material and Personal appliances of production has to be taken in a great measure for granted; and the marginal increment of supply is determined by estimates of producers as to the amount of production, it is worth their while to get out of those appliances. If trade is brisk, all energies are strained to their utmost, overtime is worked, and then the limit to production is given by want of power rather than by want of will to go further or faster. But if trade is slack, every producer has to make up his mind how near to Prime Cost it is worth his while to take fresh orders. And here there is no definite law, the chief operative force is the fear of spoiling the market; and that acts in different ways and with different strengths on different individuals and different industrial groups.”

After explaining the complications involved in the consideration of “the relations of demand and supply with reference to things that need to be combined together for the purposes of satisfying a joint demand; of which the most important instance is that of the specialized material capital, and the specialized personal skill that must work together in any trade,” he comes to the problem “of the value of an appliance for production in relation to that of the things produced by it,” that is, to the problem of the value of producers’ goods. Here he introduces the rent concept and the use of the differential principle. He says ¹³: “When different producers have different advantages for

¹³ *Ibid.*, p. 531.

producing a thing, its price must be sufficient to cover the expenses of production of those producers who have no special and exceptional facilities; for if not they will withdraw or diminish their production, and the scarcity of the amount supplied relatively to demand will raise the price. When the market is in equilibrium, and the thing is being sold at a price which covers these expenses, there remains a surplus beyond their expenses for those who have the assistance of any exceptional advantages. If these advantages arise from the command over free gifts of nature, the surplus is called a Producers' Surplus or Producers' Rent; there is a Surplus in any case, and if the owner of a free gift of nature lends it to another, he can generally get for its use a Rent equivalent to this Surplus."

The Ricardian doctrine that rent does not enter into the cost of production and consequently does not enter into the determination of prices is correct, he maintains,¹⁴ when properly interpreted, i.e., when interpreted, as he contends Ricardo meant it, as "on the one hand the rent of farm land in general, and on the other [as] the cost of production of agricultural produce in general." The doctrine is liable to misinterpretation, however, when applied to the cost of production of one particular crop. "For if land which has been used for growing hops, is found capable of yielding a higher rent as market garden land, the area under hops will undoubtedly be diminished; and this will raise their marginal cost of production and therefore their price. The rent which land will yield for one kind of produce, though it does not directly enter into those expenses, yet does act as the channel through which a demand for the land for that kind of produce increases the difficulties of supply of other kinds; and thus does indirectly affect their expenses of production."

Correctly interpreted, this doctrine applies to all classes of rents, though Ricardo applied it to farm rents only. For example, it applies "to the income yielded by appliances for production which man has made, and especially such of them as are desirable, and the supply of which cannot be rapidly increased" but to a degree which "varies with the period of time under consideration." "The shorter the period which we are considering, and the slower the process of production of those appliances, the less part will variations in the income derived from them play in checking or increasing the supply of the commodity produced by them, and in raising or lowering its supply price; and the more nearly true will it be that, for the period under discussion,

¹⁴ *Principles of Economics*, pp. 532, 533.

the Net income to be derived from them is to be regarded as a Producer's Surplus or Quasi-rent."

"In passing from the free gifts of nature through the more permanent improvements in the soil, to less permanent improvements, to farm and factory buildings, to steam-engines, etc., and finally to the less durable and less slowly made implements, we find a continuous series. And even that part of the rental value of land which is derived from advantages of situation—Situation Rent as it may be called—passes by imperceptible gradations from the character of a pure Rent, in cases in which owners of the land have had no direct part in improving its environment, to that of a Quasi-rent or even Profits when the conditions of the environment, to which land owes its Situation value, were deliberately brought about by, and at the expense of, the owners of that land in order to raise its value. Thus the Situation Rent of land presents close analogies to many different classes of income derived from advantages of the environment, from Opportunity, or *Conjuncture*."

In applying these principles of demand, supply, cost of production, etc., to producers' goods, he notes¹⁵ that the supply of these goods "is governed by estimates that reach forward over a longer time, and are therefore more liable to error than those which govern the immediate adaptation of supply to demand with regard to goods of the First Order. But further, the supply of these goods of the Second Order depends partly on the supply of appliances for making them, that is, of things removed by two Orders from the commodity with which we started: and the adjustment of the supply of these goods of the Third Order to the indirect demand for them, which is derived ultimately from the demand for the finished commodity, is a still more difficult process; it ranges over a still longer period of time, and is still more liable to error; and so on, backwards, without limit."

D. THE PROBLEM OF DISTRIBUTION

Since the explanation of the income to be derived from the command or ownership of any of the factors of production must be sought in the conditions and forces which determine their value, in treating of distribution Marshall discusses the way in which the doctrine of demand and supply operates when applied to labor, capital, and land.

Starting with the proposition¹⁶ that "the normal value of every-

¹⁵ *Ibid.*, p. 534.

¹⁶ *Ibid.*, p. 557.

thing, whether it be a particular kind of labour or capital or anything else, rests, like the keystone of an arch, balanced in equilibrium between the contending pressures of its two opposing sides" and "that the forces of demand press on the one side and those of supply on the other," in accordance with the old classical doctrine, he declares that this balancing of demand and supply takes place, in the case of labor, when wages just enable the laborer to maintain his standard of life, and in the case of capital at *some* rate of interest; in other words that a certain definite wage (that which enables laborers to maintain their standard of life) and a certain definite rate of interest exercise a controlling influence *for the time being* over the supply of labor and the supply of capital, so that, if actual wages and the actual interest rate are different from these, the supply of labor or of capital will rapidly change in the direction required to bring the actual to the level of the controlling rates. For the time being, therefore, changes in the demand for labor and capital are assumed to have no influence on wages and interest rates.

In accordance likewise with the classical doctrine he holds that the income derived from the ownership of land is determined *by* (and does not help to determine) the earnings of labor and the interest on capital, it being what he has defined as "Producers' surplus," that is, "the excess value of the return which can be got by its aid where labour and capital are applied with normal ability up to the margin of profitableness over that which the same labour and capital and ability would get if working without the aid of any such advantage."¹⁷

The standard of life which determines the point of equilibrium between the demand and the supply of labor is a different amount for different grades of labor, the supposition being "that society is divided into a number of horizontal grades, each of which is recruited from the children of its own members; and each of which has its own standard of comfort, and increases in numbers rapidly when the earnings to be got in it rise above, and shrinks rapidly when they fall below that standard." If we add to this supposition the further one "that changes in the methods of production and in the relative proportions of its various branches are not very rapid; so that the supply of the various factors of production required in any trade, whether they be human agents or material appliances, can always be adjusted pretty closely to the demand for them," we arrive, according to

¹⁷ *Principles of Economics*, p. 560.

Marshall, at the following law of wages: "The normal wage in any trade is that which is sufficient to enable a labourer, who has normal regularity of employment, to support himself and a family of normal size according to the standard of comfort that is normal in the grade to which his trade belongs; it is not dependent on demand except to this extent, that if there were no demand for the labour of the trade at that wage the trade would not exist. In other words the normal wage represents the expenses of production of the labour according to the ruling standard of comfort, and is a fixed quantity so long as that standard is fixed; the influence of demand is only to determine the number of those who are brought into the trade and not their wages."¹⁸

Under those almost stationary conditions the operation of the law of substitution, as Marshall calls "the tendency of everyone to select the best means for attaining his own ends," "would then have caused each several kind of labour or machinery, or other agent of production to be used for each several purpose until its farther use was no longer remunerative; each branch of production would have been extended until it so far satiated the wants which it was directed to meet, that no further supply of its products would be sold on such terms as to pay their expenses of production; and meanwhile the employment of each several agent in each branch of production would have been extended until full advantage had been taken of its special fitness for the work; its use would cease only when there remained nothing that could be done by it better, or more cheaply, than by other means."¹⁹

"Instead of assuming as in the above discussion that these equilibrium points between the demand and the supply of each agent of production are fixed, if we assume that in each case the point depends upon the amount demanded, that is, that each agent has a supply schedule of the same character as those for particular commodities," we arrive at the principle that "the limit or 'margin' at which the use of any one of these agents of production terminates, and the aid of the other is substituted for it in any branch of production, is found where the relative efficiencies of these two agencies are proportionate to their costs."²⁰

¹⁸ *Ibid.*, p. 558.

¹⁹ *Ibid.*, pp. 558, 559.

²⁰ *Ibid.*, p. 559.

There is thus mutual interdependence between the amount, efficiency, and price of each agent of production and those of other agents in the same trade. Since the same agents are used in different trades, there is mutual dependence between the amounts and the prices and the efficiencies of these agents in the different trades. "The demand for [each agent] in each trade is directly dependent upon, and derived from, the demand for the commodities made by the trade; and this in its turn is determined by the eagerness of purchasers for those commodities and the amount of purchasing power at their disposal." Hence "the amount of the commodity and its price, the amounts of the several factors or agents of production used in making them, and their prices—all these elements mutually determine one another, and if an external cause should alter any one of them the effect of the disturbance extends to all the others."²¹

Marshall follows this general exposition of the principles operative in the distribution of income first with an account of the interdependence between the demand and the supply of the different agents of production, the general principle being "that the demand for each agent increases generally with the supply of the others" and "that the demand for it is lessened when any of those others can profitably be substituted for it"; and second, with a consideration of "the special qualities and incidents of the agents of production." These are made to appear in an inquiry (a) into the question of "how price and the causes that determine it need to be differently estimated in the case of the hiring price of labour, and the purchase price of commodities"; (b) into "the many different scopes which the usage of the market place assigns to [the term profits] and even to the more elementary term Interest"; (c) into "the influence of varieties of tenure on the form of the demand for land"; and (d) into the question "How far the general theories of Rent and Quasi-rent are applicable to the incomes earned by natural abilities, or by skill and knowledge acquired long ago, whether in the ranks of the employers, the employed, or the professional classes."

E. AN APPRAISAL OF MARSHALL'S WORK

Marshall succeeded in a very high degree in the performance of the task which he set himself, namely, that of presenting "a modern version of old doctrines with the aid of the new work and with

²¹ *Principles of Economics*, pp. 559, 560.

reference to the new problems of our age." He has demonstrated that the old doctrines of demand and supply, normal value, cost of production, etc., can be stated and interpreted in such a manner as to make them in some degree conform to the facts of modern life and to aid in their explanation. Perhaps he has carried his explanations as far as is necessary or desirable for the business man and the average citizen or even for the average student, but has he carried them as far as the interests of economic science require?

His task has been so carefully and so completely performed and with such objectiveness, broad-mindedness, and good judgment that most of his reasoning and most of his conclusions have been, and doubtless will for a long time continue to be, accepted as sound by economists as well as by other readers and students. His treatise is authoritative, illuminating, and very valuable, but the most careful and profound students cannot but regard it as incomplete and unsatisfactory in its discussion of the most fundamental aspects of economic theory. His treatment of the interrelations and interactions of economic forces is masterly and unsurpassed, but there are problems in the science which require for their solution something more and different. Not all the queries they raise, regarding especially the relations of cause and effect, can be answered by the principle of the balance of forces, the essential feature of which is that each cause is in turn effect and each effect in turn cause. The solution of the most important of these problems Marshall has either completely neglected or left unsatisfactory. As examples may be cited the problem of the ultimate determinants of subjective value, whether they are to be found on the side of human wants or on that of the sacrifices involved in production, and the relation of this problem to that of exchange value in general and to the value of the agents of production in particular; also the problem of interest in all except its more superficial aspects, which latter Marshall has handled in a very satisfactory manner, and the relation of this problem to that of marginal rent and wages. In fact the entire group of problems to which the Austrians primarily addressed themselves have not received adequate consideration by Marshall.

If these more fundamental problems are to receive adequate attention and if the science of economics demands their solution, it may be questioned whether the demand-and-supply method of approach and plan of organization is best or even suitable. The attempt to regard

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all the major problems of the science from that point of view and to force all the major discussions into the skeleton of that plan necessarily results in obscuring some of the issues and completely omitting others. It also gives an impression of superficiality which in some cases at least a close study justifies.

CHAPTER XXVII

OTHER DEVELOPMENTS IN THEORY

In addition to the developments reviewed in the preceding chapters, there have been a number of attempts to amend and improve individual theories, especially those pertaining to value and distribution. Among these should be noted the so-called social value theories, the central idea of which is that value is a *social* rather than an *individual* product.

A. SOCIAL VALUE THEORIES

Close analysis indicates that most of these are not independent theories, out of harmony with or opposed to those which find the explanation of value in the relation between goods and the satisfaction of the wants of the individual members of society, but elaborations of the social aspects of these latter theories. This is the case with the theories of Professor J. B. Clark, E. R. A. Seligman, and others. These authors concentrate attention upon the fact that exchange ratios, which values are generally defined to be, result from the cooperative and competitive activities of buyers and sellers who in their various ramifications include all the members of society, and really constitute it, a fact which did not escape the attention of Jevons or the Austrians or the classical economists. This fact, however, is quite consistent with the contention that what the Austrians call subjective value, a product of the operations of the minds of individuals, explains the actions of buyers and sellers on the markets. In fact, these authors themselves so explain these actions.¹ One may admit, therefore, that value is a social product in the sense in which Clark and Seligman employ the terms *value* and *social*, but that for its explanation one must look to what takes place in the minds of the individuals who constitute society, that is, to marginal utility or personal sacrifice which antedates, precedes, and explains market activities.

¹ For an analysis of the doctrines of Clark and Seligman, see Anderson's *Social Value*, Chs. I and VII. Professor Clark's doctrine was expounded in the *New Englander* as early as 1881 and later in his *Philosophy of Wealth*; Professor Seligman's, in his *Principles of Economics*.

A social value theory of a somewhat different kind is presented by Mr. B. M. Anderson in his book entitled *Social Value*, the essence of which is that the actions of individuals on the market are themselves *socially* and not *individually* determined and that, therefore, *social* and not *individual* values antedate and explain exchange or market values.

Mr. Anderson begins his exposition with an attempt to demonstrate the proposition that value is a *quantitative* and not a relative concept, more specifically, that it is a *quantity* of something and not a ratio of exchange or any other kind of a ratio. The following is one of his statements of this proposition²: "Marginal utility is a definite quantity, social marginal utility is a definite quantity, and value, if conceived as identical with social marginal utility, or as the quantitative measure of it (the difference is verbal, for present purposes, at least), must be so considered. A *ratio of exchange*, then, is a ratio between two quantities of social marginal utility, or social value, rather than between two physical objects, and *price*, in this view, is a particular sort of ratio of exchange, namely, one where one of the terms of the ratio is the social marginal utility, or the social value, of the money unit."

He contrasts this conception with that of value as *an ethical ideal* and *as a ratio*. Under the first head he classifies the medieval conception of just price and President Hadley's conception, thus expressed in his *Economics*: "The price of an article or service, in the ordinary commercial sense, is the amount of money which is paid, asked or offered for it. The value of an article or service, is the amount of money which may properly be paid, asked, or offered for it."³

The second or ratio-conception he contrasts with his own as "the value of a thing as a definite magnitude, independent of exchange relations, and that value as a relative thing, not only *measured* by the process of exchanging, but also caused by it, and varying with the value of the things with which the article is compared. This latter was the conception of the classical economists and is probably still the prevailing one."⁴

Against this latter doctrine he urges several considerations⁵:

(a) That it involves reasoning in a vicious circle: "When I ask you what the value of wheat is, you refer me to corn, and then when I ask you the value of corn, you refer me again to wheat."

² B. M. Anderson, *Social Value*, pp. 13, 14.

³ *Ibid.*, p. 15.

⁴ *Ibid.*, p. 15.

⁵ *Ibid.*, p. 18.

"Value as merely relative," he says, "is a thing hanging in the air."

(2) The fact that ratios of exchange are expressed quantitatively implies, he thinks, that the commodities exchanged "must have a common quality, present in each in a definite quantitative degree . . . for the quantitative specification depends on the extent to which the homogeneous quality is present in each of the goods." "We can have no quantitative ratios," he says, "between unlike things."

(3) Ratios of exchange, he apparently thinks, cannot supply us with the units necessary for the measurements of wealth. I say "apparently" because he quotes⁶ with approval the following statement made by Professor John B. Clark in an article entitled "Ultimate Standard of Value" (*Yale Review*, 1892, p. 258): "The study of wealth is meaningless, unless there be a unit for measuring it. The questions to be answered are quantitative. . . . Reciprocal comparisons give no sums. . . . Ratios of exchange alone afford us no answer to the economist's chief inquiries."

An examination of the reasoning employed in the development of the propositions involved in these considerations reveals some confusion in the use of the terms *quantitative*, *quantity*, *relative*, *relativity*, *measure*, *commensurable*, etc. As economists use and need to use these terms, are there any substantial differences between those who think of value as a ratio of exchange and those who think of it as a quantity?

Let us attempt to answer this question, in the first place, by noting our actual procedure in what we call "measuring and expressing" value. In the United States we note the actual or estimated ratios of exchange between 23.22 grains of gold and the commodities whose so-called values we wish to measure or express. These ratios supply us with figures, quantitative expressions, which are homogeneous and combinable into sums, since they indicate multiples and subdivisions of 23.22 grains of gold.

Now is it not precisely this procedure and its results that economists describe, and properly describe, by the terms *measure* and *express values*? And does this procedure involve reasoning in a circle? Does not all measuring and quantitative expression of its results involve comparison and consequently relativity? We measure linear extension by comparing an arbitrarily selected unit of it, a foot-rule or a yard-stick, with the length of the room or the field the linear extension of which we wish to measure; we measure the cubical contents of a box with an arbitrarily selected unit of cubical contents, a bushel basket,

⁶ *Ibid.*, p. 23.

a quart measure, etc., etc., and in like manner we measure ratios of exchange by comparing them with an arbitrarily selected ratio, namely that with a specified amount of gold. In each case we compare like things: linear extension with linear extension, cubical contents with cubical contents, ratios of exchange with ratios of exchange; and in each case these comparisons result in quantitative expressions, figures which can be added, subtracted, multiplied, and divided. Comparison, which suggests the idea or concept of relativity, and quantitative expression, which suggests the idea of quantity, thus appear to be complementary procedures or different phases of the same procedure. Measuring is comparison and noting between the things compared of certain relations which can be and are expressed in figures. The things or qualities that we compare are like things or qualities and therefore comparable.

It appears, therefore, to be a mistake to say that "reciprocal comparisons give no sums" and that ratios of exchange do not enable us to measure wealth and deal with its quantitative aspects. Whether or not they afford an "answer to the economist's chief inquiries" is another and quite different matter.

The answer to the question whether the process of exchange *causes* value as well as measures it, which according to Mr. Anderson should be negative, must depend upon the meaning assigned to the verb *cause*. If by *cause*, we mean what the early economists evidently meant by it, a phenomenon or the phenomena necessarily precedent to ratios of exchange and essential to them, then exchange certainly causes value. Obviously we cannot have ratios of exchange without exchange, and the latter may, without violence to language, be said to cause or create the former.

Of course, in the argument we are examining Mr. Anderson was using the word *cause* in the sense of "final" or "ultimate" cause. He was in search of something that lies back of the process of exchange itself, that causes, or at least explains, that phenomenon. What we have said in the preceding paragraphs, therefore, does not invalidate his contention that for this latter purpose we need a quantitative concept of value, or at least something more than the concept of value as a ratio of exchange.

An examination of his reasoning in support of this contention, however, reveals superficiality in his analysis of what is implied in what he calls "the quantitative concept of value" or at least failure to give

due weight to the fact, already noted, that this concept is *complementary* to the "relative concept."

Unfortunately Mr. Anderson, is vague, probably necessarily so, in his explanation of what he means when he says that value is a "quantity." He does not and cannot tell us of what it is a quantity, any more than the physicist can tell us what electricity is. The latter measures and treats electricity quantitatively, however, and one wonders whether Mr. Anderson really means, or can mean, by the statement that value is a quantity anything more than that it is something that we must and do treat quantitatively and whether this does or can mean anything more than that we must measure it and express the results of such measurements in figures which can be added and otherwise treated mathematically. As we have already shown, such measurements require the arbitrary selection of units—i.e., units of the conventional kind (in most cases nowadays, weight units of the precious metals) and comparisons of certain qualities of such units: usually, though not necessarily, their ratios of exchange (it might equally well be their marginal utility)—with the same qualities as the object we are measuring. Comparisons imply relativity and what Mr. Anderson calls the "relative concept."

Mr. Anderson labored valiantly with this "quantitative concept," in the belief, apparently, that it was necessary to, or would at least lend support to, the explanation of value to the exposition of which his book is devoted. He closes this part of his exposition with this statement: "I conclude that the value of a thing is a quantity, and not a ratio. It is a definite magnitude, and not a mere relation. What sort of a quantity remains to be seen."⁷

The next step in his argument is the attempt to prove that value properly conceived is not the same thing as "marginal utility to an individual." What he actually does is to show that in a competitive market the marginal utilities of the commodities exchanged at the equilibrium price may, and probably usually do, represent different amounts of utility to the two members of the marginal pair. For example a favorite horse sold by a poor country boy to a rich man for forty dollars would probably represent many times as much utility to the former as to the latter. Furthermore he shows that the price, forty dollars, may not be in any sense an accurate measure of the utility of the horse to either party. The rich man might have been

⁷ *Social Value*, p. 27.

willing to pay more, and the poor boy to take less rather than not to have made a sale. Just what does this prove? Certainly not that marginal utility or subjective value in the sense in which the Austrians use those terms were not the determining factors in fixing the market price of the horse at forty dollars.

The fact is that this negative argument was not at all vital to the support of Mr. Anderson's chief contention, namely, that value is a social product which the individual consciously or unconsciously inherits or absorbs and which motivates his action on the market. There are several steps in the process of reasoning by which he attempts to establish this proposition.

The first is that economic value is a species of the genus "value," other species of which are to be found in the other social sciences, ethics, esthetics, jurisprudence, etc. (p. 93).

As a personal experience, he says,⁸ economic value "is linked with the whole body of ideas, emotions, habits, instincts, impulses, which in their organic totality, we call personality. Back of the value stands a long history, which persists into the present in the form of dispositions and activities, of which we are unconscious so long as they are unimpeded but which spring into consciousness at once if arrested." Among these arresting forces are values belonging to the ethical, esthetic, or legal realm which sometimes challenge and oppose economic values and sometimes supplement and help in their formation. Indeed, in the individual's psychology no hard and fast lines are drawn between these different sorts of value. "There are shadings, gradations, quantitative differences which become distinct enough to justify a classification of values but which do not justify putting them into separate, water-tight systems," each with its "own equilibrium and its own interactions."

"The fact is, simply, that ethical and esthetic values may constantly reinforce economic values, economic values reinforce ethical values, or economic and ethical or other values may oppose each other, and marginal equilibria are constantly worked out between them. Or, better, *among* them, for, while in the consciousness of the moment we may have only *two* opposing values in mind, and may have our equilibrium apparently between just two, yet in fact the whole system of values is constantly tending toward equilibrium, ethical, religious, economic, esthetic, all asserting themselves and finding their place in

⁸ *Social Value*, p. 112.

the scale, and getting their 'margins' fixed—extensive margins and intensive margins."

He also describes value as a motivating force embodied in an object and having power over us and our actions. This he considers the most significant thing about it. "If the object be a person," he says,⁹ "we are under his control . . . to the extent of the value." He declares this to be "the essential and universal element in values," "value 'stripped for racing.'"

These values which thus control and motivate individual action cannot, according to Anderson, be "completely accounted for on the psychical side by what goes on in the individual mind; every individual mind is part of a larger whole; every thing in the individual mind has been influenced by processes in the minds of others; every process in the individual mind influences, directly or indirectly, processes in the minds of others. There is a social mind. And the values in the mind of an individual constitute no self-complete and independent system, either in their origin, in their interactions, or in their consequences for action. In our psychological phrase, their 'presuppositions' include elements in the minds of other men, and they themselves constitute part of the 'presuppositions' of the values in the minds of other men. Finally, there are values which correspond to the values of no individual mind, great social values, whose presuppositions are tremendously complex, including individual values in the minds of many men, as well as other factors which we shall have to analyze in considerable detail, great social values whose motivating power directs the activities of nations, of great industries, of literary and artistic 'schools,' of churches and other social organizations, as well as the daily lives of every man and woman, impelling them in paths which no individual man foresaw or purposed."

Mr. Anderson's argument is very convincing in support of the proposition that, as he puts it, economic value is a species of a genus which is represented in all the social sciences and that in their effect upon the human mind and upon the decisions, even the economic decisions, of men these other species are potent, sometimes reinforcing and sometimes opposing economic value, and that in the determination of the decisions and activities of men they cannot be separated; but it is not equally convincing in support of his contentions that other value theorists, especially the marginal utility theorists, have

⁹ *Ibid.*, pp. 105, 106

ignored the existence of this so-called social value, and that the recognition of its existence proves their theories to be incorrect and inadequate for the purpose for which they were devised.

That purpose was to explain ratios of exchange, and especially prices, *on competitive markets*. The older economists, especially the classicists, made important and valuable contributions to this explanation, but did not complete it. Their work was supplemented, not superseded, by the marginal utility theorists, who also threw light into many dark corners the older economists had left entirely unilluminated. Mr. Anderson may be said to have supplemented the marginal utility theory by contributing to the explanation, or by at least pointing out that an explanation is needed, of what the marginal utility theorists did not pretend to explain, namely the wants of individuals. They started with these as a datum, recognizing frankly that their explanation must be sought in the entire life of individuals, past and present, individual and social.

Granting all that Mr. Anderson claims regarding the influence of tradition, custom, social institutions, imitation, the mutual effect of individuals upon each other, etc., etc., does not annihilate individualism and personality and make men and women mere automata, moved in this direction and that and motivated in their economic activities entirely or even chiefly by outside forces. When men and women meet and compete in the market-place, they are individuals, acting independently, and through their actions helping to make those social values which Mr. Anderson talks about. No amount of analysis or phrase-making or terminology-conjuring can alter this fact of universal experience and observation, which theories of value have taken as their point of departure.

B. THEORIES OF PROFITS¹⁰

The recognition of a source of income different from natural agents, labor, and capital came rather late in the history of economics. The classical economists discovered that the shares called rent, wages, and profits were composite in character, each being a genus with several species of income derived from labor and capital as well as from natural agents other than land, but they persisted in associating what they called profits primarily with capital and in thinking of the

¹⁰ To the theories described under this head should be added that of Professor John B. Clark described in Ch. XXV. See also Gide and Rist, *A History of Economic Doctrines*, translated by William Smart and R. Richards, Bk. V, Ch. II.

capitalist as the profits-receiver *par excellence*, though they recognized that he might also receive "wages of superintendence," just as they recognized that the laborer might also receive profits and rent, and the landlord, wages and profits.

A change in this method of procedure in the explanation of the distribution of wealth resulted from a more minute and accurate analysis of the technique of production under modern conditions and of the functions of capital. Such analysis raised a question regarding the validity of the proposition, expounded by Adam Smith and maintained in one form or another throughout the classical period, that one, at least, of the functions of capital is "to set labor in motion" or to employ labor. The real employer of labor and the performer of other important functions in modern economic life was revealed as what the French have called the *entrepreneur* and the English sometimes the "captain of industry." These functions have been distinguished from those of labor with which, so far as they were recognized at all, they were classed by the classical economists, as well as from those of capital and natural agents.

1. *Francis A. Walker's Theory.*

In this differentiation of the entrepreneurial function from the functions of the other agents in production many economists have taken a hand, one of the earliest and the most successful being Francis A. Walker, an American economist of note and high rank in the last quarter of the last century. In his book entitled *The Wages Question*, first published in 1876, and later in his *Political Economy* he not only clearly described these functions, but insisted that the services of the entrepreneur are rewarded in accordance with a law analogous to that of rent and that these rewards are not subtracted from those of labor.

According to his analysis the entrepreneurial function developed out of conditions found only in advanced stages of industrial and commercial development and were not recognized by earlier economists because they were "accustomed to take their illustrations of the offices of labor and capital from the savage state, or at least from a very primitive condition of industry. . . . But when, in the development of industry, the forms of production become almost infinitely numerous and complicated . . . the mere possession of capital no longer constitutes the one qualification for employing labor; and, on the other hand, the laborer no longer looks to the employer to furnish merely

food and the materials and tools of the trade; *but to furnish also technical skill, commercial knowledge, and the powers of administration; to assume responsibilities and provide against contingencies; to shape and direct production, and to organize and control the industrial machinery.*"¹¹ (Italics mine.)

He also emphasized the fact that under the conditions above described the employer of labor may not be a capitalist at all. "If he be the man to conduct business," he says, "capital to purchase food, tools and materials will not, under our modern credit system, long be wanting to him. . . . It is no longer true that a man becomes an employer because he is a capitalist. Men command capital because they have the qualifications to profitably employ labor. To these, captains of industry . . . capital and labor alike resort for the opportunity to perform their several functions."¹²

Not all employers of labor and capital, however, were admitted by Walker to the rank of *entrepreneur* or captain of industry. He excluded "those who hire servants or retain assistants who are to be paid out of revenues already acquired," "large numbers of artisans who have single apprentices," and the man whose nominal employees are substantially partners, "approximately equal [to him] in skill and experience." He admitted to this class only "a comparatively small body of men, who control the destinies of labor no more than they do the destinies of capital." "All are in theory free to enter; but the number who venture is closely restricted by the known conditions of business. Those only undertake it who are able, or, like the rowers of Mnestheus, think they are able to sustain the ordeal of fierce and unrelenting competition; while those who have the courage to venture are continually sifted by commercial and industrial pressures and panics, so that only the fittest survive."¹³

In explanation of the income of this group of men Walker made use of the rent doctrine of the classical school. "The remuneration of the entrepreneur or employer," he said,¹⁴ "partakes largely of the nature of rent, being a species of the same genus. So far as this is the case, profits do not form a part of the price of the products of industry, and do not cause any diminution of the wages of labor." In proof of

¹¹ Francis A. Walker, *The Wages Question* (New York: Henry Holt and Company, 1891), pp. 244, 245.

¹² *Ibid.*, p. 245.

¹³ *Ibid.*, pp. 247-249, 251.

¹⁴ *Political Economy*, 2d ed. (New York: Henry Holt and Company, 1887), pp. 236, 237.

this proposition he described as follows what he called "a theoretical no-profits stage of production":

"If the number of men of exceptional abilities were sufficient or more than sufficient to do all the business that required to be done, of all sorts and in all places; if (2) these men, however much they surpassed all other members of the industrial society, were among themselves equal in all respects which concern the conduct of business; and if (3) this class, so constituted and so endowed, were distinguished from all not of their class so clearly and so conspicuously that no one having these exceptional abilities should fail to be recognized, and no one lacking such abilities in full measure should esteem himself capable, of conducting business, or be so esteemed, for the purpose of obtaining credit, we should have a situation closely analogous to that which we described (par. 255) in the case of a community near which was found an amount of good land, of uniform quality, adequate or more than adequate, to raise all produce required for the support of the community."

The result of such a situation he thought would be a rate of remuneration for the services of a man of this class "practically equal to what he would receive if employed by another." This remuneration he called wages, and he thought that what he regarded as profits would be non-existent in such a situation.

Actual conditions, however, and those under which profits appear, Walker described as follows¹⁵:

"The qualifications for the conduct of business are not equal throughout all of a sufficiently numerous class. On the contrary, the range of ability is almost world wide. First we have those rarely-gifted persons who, in common phrase, seem to turn everything they touch into gold; whose commercial dealings have the air of magic; who have such insight as almost to seem to have foresight; who are so resolute and firm in temper that apprehension and alarms and repeated shocks of disaster never cause them to relax their hold or change their course; who have such command over men that all with whom they have to do acquire vigor from the contact and work for them as they would not, perhaps could not, work for others.

"Next below, though far below, we have that much larger class of men of business, of a high order of talent, though without genius or anything savoring of magic, whose unqualified success is easily comprehended, even if it can not be imitated; men of natural mastery, sagacious, prompt and resolute.

¹⁵ *Ibid.*, pp. 238, 239.

"Then we have men who, on the whole, do well, or pretty well in business; men who enjoy a harmonious union of all the qualities of the entrepreneur, though only in moderate degree, or in whom some defect, mental or moral, impairs a higher order of abilities; men who are never masters of their fortunes, are never beyond the imminence of disaster, and yet, by care and pains and diligence, win no small profits from their business, and, if frugality be added to their other virtues, accumulate in time large estates. . . . Lower down in the industrial order are a multitude of men who are found in the control of business enterprises for no good reason; men of checkered fortunes, sometimes doing well, but more often ill; some of them, perhaps, filling a place that would not otherwise be filled, but, more commonly in business because they have forced themselves into it under a mistaken idea of their own abilities, perhaps encouraged by the partiality of friends who have been willing to place in their hands the agencies of production, or entrust them with commercial or banking capital. The industrial careers of these men are not peculiarly happy, though the degree in which they suffer from the constant imminence of loss, perhaps of bankruptcy, is very much a matter of temperament. Some take it extremely hard, and when they fall make no effort to rise again; others are irrepressible as Harlequin, jumping up, alert as ever, after being apparently hanged, drawn and quartered by the common executioner."

The remuneration of this last group of *entrepreneurs* Walker thought should not be regarded as profits. "For purposes of scientific reasoning," he said,¹⁶ "we may treat it as constituting no profits at all. Live they [these *entrepreneurs*] do, partly by legitimate toll upon the business that passes through their hands, partly at the cost of their creditors, with whom they make frequent compositions, partly at the expense of friends, or by the sacrifice of inherited means. This bare subsistence, obtained through so much of hard work, of anxiety, and often of humiliation, we regard as that minimum which, in economics, we can treat as *nil*. From this low point upwards, we measure profits."

"All profits," he adds, "are drawn from a body of wealth which is created by the exceptional abilities (or opportunities) of those employers who receive profits, measured from the level of those employers who receive no profits, just as all rents are drawn from a body of wealth, which is created by the exceptional fertility (or facilities for transportation of produce) of the rent lands, measured from the level of the no-rent lands."

These profits do not enter into price, since it is "the cost of production of that portion of the supply which is produced at the greatest

¹⁶ *Political Economy*, pp. 239, 240.

disadvantage," that is, by the industries managed by these *entrepreneurs* who receive no profits, that determines "the price of the whole supply." Neither are these profits "subtracted from wages," since "the employers of the lowest industrial grade—the no-profits employers, . . . must pay wages to hire laborers to work under their direction. These wages constitute an essential part of the cost, to the employer, of the production of goods." ¹⁷

2. Charles W. Macfarlane's Theory.

In his *Value and Distribution* (Book II) Mr. Charles W. Macfarlane advocates another conception and explanation of profits. He recognized the reality of the differential rewards received by superior entrepreneurs to which Walker called attention, but proposed that these be called *entrepreneurs' rents* and that the term *profits* "be restricted to those *monopoly surpluses* that enter into the determination of price." ¹⁸ These surpluses appear in the production of all classes of "scarcity goods," that is, goods that have a "scarcity value" because they are not "freely reproducible" in the sense in which the classical economists used that term.

In the production of all such goods, according to Mr. Macfarlane, there is present a monopoly element, characterized by the fact that the supply is limited or controlled in such a manner that the price, even on the margin, yields a surplus above the cost of production. This surplus is available to all producers, marginal as well as supramarginal; while in the case of freely reproducible goods, cost of production and marginal price are identical, there being included in the former merely a "normal wage" for the entrepreneur, and no surplus above costs is available to marginal producers.

To this marginal surplus and to no other Mr. Macfarlane proposed to apply the term *profits*. There still remain the differential surpluses to which Walker called attention and which are received by entrepreneurs of superior ability, and those obtained by the owners of supramarginal lands. To the former, as well as to the latter, Macfarlane proposed to apply the term *rent*, instead of *profits*, on the ground that they are explained by the rent principle and are price-determined. These marginal surpluses accruing in the case of all scarcity goods, on the other hand, cannot be explained by the rent principle and are

¹⁷ *Ibid.*, pp. 240, 241.

¹⁸ Charles W. Macfarlane, *Value and Distribution* (Philadelphia: J. B. Lippincott Company, 1899), p. 120.

price-determining, since they "must be paid to the marginal producer to induce him to continue his efforts to put this commodity on the market."¹⁹ He, therefore, characterized rents as individual, differential, limited monopoly, and price-determined surpluses; and profits, as group, marginal, monopoly, and price-determining surpluses.

In order to distinguish profits in the above-described sense from interest, with which the classical economists associated and sometimes confused profits, Macfarlane added to his description of them the statements²⁰ "that it [profit] arises in connection with the production of a single commodity," where "free competition fails"; whereas interest "only arises under conditions of free competition" and "is determined in the entire field of production" and by "the earnings of capital in the marginal or least productive industry." Like profits, interest is also price-determining, being an essential element in the determination of the supply of all goods, those produced freely as well as those produced under conditions of monopoly.

In developing these aspects of distribution Macfarlane pictured the different branches of production arranged in series according to the degree of their productivity and in each branch entrepreneurs arranged in series according to their abilities. In the first series certain branches of production are carried on by entrepreneurs with monopoly advantages of various kinds, turning out scarcity goods whose prices leave to the producers even at the margin a surplus over costs. Entrepreneurs in the other branches of production in this series do not enjoy monopoly advantages. The same opportunities they have are open freely to every one, and production in these lines may be extended indefinitely, the only limitations being in the available supplies of labor and capital. These supplies are conditioned by certain payments to laborers and capitalists respectively, without the receipt of which in the long run they will refuse to maintain the supplies of labor and capital.

In this manner he visualized *three* surpluses or funds: one absorbed by supramarginal entrepreneurs and the owners of supramarginal lands, measured by the differential principle and price-determined; a second absorbed by the marginal entrepreneurs engaged in the production of scarcity goods and price-determining, since it conditions the supply of such goods; and a third absorbed by capitalists and price-

¹⁹ *Value and Distribution*, p. 124.

²⁰ *Ibid.*, p. 127.

determining, since it conditions the supply of freely reproducible goods and is a necessary element in the cost of production of goods in the marginal industries. The first of these surpluses he proposed to call rents, the second profits, and the third interest.

It should be noted that in this analysis Macfarlane revealed a surplus or fund not noticed by Walker and in their explanation of the distribution of wealth neglected by the classical economists, namely, monopoly gains other than those absorbed by the owners of supra-marginal lands. This surplus is shunted into the pockets of entrepreneurs who enjoy monopoly privileges by the power these privileges give them over the supply of the goods they produce and not as a result of their superior abilities. Neither is it in any proper sense to be regarded as a product of or a payment for the exercise of the entrepreneurial function as usually defined.

3. *The Residual Claimant Theory.*

An analysis of what remains of the social dividend, after rent, wages, and interest as ordinarily defined have been paid, reveals the fact that it is a composite made up of several elements, not all of which can be explained by any single theory. Most economists have, therefore, found it impossible to dispense with a residual claimant in the explanation of the distribution of wealth and have assigned that position to the entrepreneur for the same reason that, before the differentiation of the entrepreneur from the other claimants, the classical economists assigned it to the capitalist. They have then classified what remains for him, after paying rent, wages, and interest, under several heads, such for example as "*entrepreneur's wage*," "*speculative gains*," "*chance gains*," "*gains of bargaining*," and "*non-competitive profits*"²¹; or "*rewards to other factors of production*" owned by himself, including wages of superintendence, "*charges of maintenance*" including depreciation and insurance against risks, "*extra-personal gains*" including "*monopoly gains*," "*conjunctural gains*," and "*pure profits*" explained as differential gains in accordance with Walker's theory²²; or "*the risks of investment*," "*necessary profits*" including interest on his investment and wages of superintendence, "*differential profits*" due

²¹ Richard T. Ely, *Outlines of Economics*, rev. ed. (New York: The Macmillan Company, 1908), Ch. XXV.

²² Richard T. Ely and George Ray Wicker, *Elementary Principles of Economics*, revised (New York: The Macmillan Company, 1917), Part IV, Ch. V.

to superior personal ability, patents, or chance, and "monopoly profits."²³

C. THE MARGINAL PRODUCTIVITY THEORY OF DISTRIBUTION

In recent times, in the explanation of the distribution of wealth, wide use has been made, especially in the United States, of the concept of the marginal productivity of land, labor, and capital. The theory is that, from the point of view of the *entrepreneur*, each of these agents of production is subject to the law of diminishing returns and within limits may be substituted for any other at the margin; that under competitive conditions the entrepreneur will continue to use additional units of each, substituting one for the other, whenever it is profitable, until the amount added to his product by the last unit of each just equals its cost; and that, since in a competitive market the price of each unit of the total supply of each of these agents will be the same and will be fixed by that of the marginal unit, the price of the product of that marginal unit multiplied by the number of units will equal each agent's share in the social dividend.

Up to this point the reasoning simply leads to the conclusion that there is equality between the value or price of the marginal products of land, labor, and capital and what is paid for the use of these agents. It does not explain what determines either. The *entrepreneur* confronts a market in which the prices of his products and the costs of land, labor, and capital are already fixed in advance. The theory explains how he reacts to these conditions. It is necessary to explain further how his reaction affects the market situation for both products and agents. From another point of view it may be said that the marginal productivity theory explains the *entrepreneur's* demand for the agents of production, leaving unexplained the supply side of the problem. As a theory of distribution it is, therefore, incomplete and must be supplemented by other theories.

D. THEORIES OF MONEY AND CREDIT

For centuries the importance of the rôle played by money, credit, and prices in the economies of individuals and nations has been increasing and the scope of their operations has been broadening, during the last few decades at a constantly quickening pace. Evidence of this may be seen in the constantly increasing proportion of produc-

²³ Charles Jesse Bullock, *Introduction to the Study of Economics*, 3d ed., revised (New York: Silver, Burdett and Company, 1908), Ch. XIV.

tive operations that are carried on for the supply of markets and for profit instead of for the direct supply of the wants of the producers themselves; in the growth of the credit system and of banking institutions, stock and produce exchanges, and the machinery required for their operation; in the constantly increasing volume of private and public indebtedness; and in the phenomena which accompany so-called business cycles, perhaps in the business cycle itself.

On the development of economics the effect of these changes is evident in the increasing amount of attention devoted by economists to monetary and credit phenomena, in the place they have assigned to these topics in their systems of thought and in their theories regarding them. Contrary to the practice of the classical school, many economists, Alfred Marshall for example, have made price phenomena the starting point of their analysis instead of assigning them a merely subordinate place. In the field of theory the chief outcome has been criticism of the quantity theory and attempts to restate and revamp it, elaboration and extension of the theory of banking, and the development of theories regarding the stabilization of prices.

1. *Restatements and Criticism of the Quantity Theory.*

Defects in the classical economists' version of the quantity theory²⁴ rendered a restatement necessary by any one who wished to use it in the explanation of contemporary phenomena, and several have been attempted. The earliest of them took the form of changes in the scope and content given to the terms *demand* and *supply* as used in the quantitative formula. The following are typical samples:

Francis A. Walker²⁵ declared that demand for money is determined "by the occasion for the use of money in effecting exchanges" and that it is not identical either with the *gross* volume of wealth, since not all wealth is exchanged, nor even with "products to be exchanged," since some will be exchanged several times, and some without the use of money, i.e., by means of barter, through the agency of banks, and through "cancellation of indebtedness." Without further specification of precisely what should be included or excluded, he defined it as "the amount of money work to be done."

Supply of money he defined as "the money force available to do the money-work required to be done, in the given community, at the given time," and he added that money force "is composed of two

²⁴ See Ch. XVIII, sec. 5.

²⁵ *Political Economy*, pp. 169-173.

factors—the amount of money and the rapidity of circulation.” “There may be as much money force,” he said, “in 1000 dollars each of which passes from hand to hand four times a week, as in 4000 dollars which change owners but once from Monday morning to Saturday night.” In another connection²⁶ he wrote: “The supply of money consists of the quantity in circulation multiplied into the average number of times that each piece changes hands in exchange for goods.”

The need for an accurate definition of the word *money* in terms of concrete things, which would enable one to determine whether he would include under that head bank-notes, deposits subject to check, etc., apparently did not impress Walker. His definition of this term must be deduced from his discussion of the functions of money and from such statements as those quoted above.

In his book on *Money and Currency*²⁷ (Ch. II) Joseph French Johnson offered the following definitions and explanations of the key words and phrases employed in the quantitative formula:

Money he defined as “that valuable thing or economic good which possesses in any country or community universal acceptability as a medium of exchange or means of payment.” In the United States he said, it is gold and gold only. He used the term *currency* when he wished to include in his discussion both money and other elements of the medium of exchange.

Demand for money he declared to be determined not by the desire for it nor by the total volume of goods on the market nor even by the quantity offered for sale, but by “the quantity sold,” and used for till money and for bank reserves. “Exchanges being made for money in a given community on a given day and the total *value* of goods and services so exchanged” equal, he said, “the total volume of money exchanges” and determine “the demand for money for use as a medium of exchange.” It should be noted that in this statement he included the “*value* of goods and services” among the influences that enter into the determination of demand.

The supply of money he defined²⁸ as “the number or quantity of money units available for use as a medium of exchange,” and he distinguished it from the supply of what he called “money utility or money value” on the ground that a given piece of money may embody a variable amount of money utility or value. In this respect, he

²⁶ *Money, Trade and Industry* (New York: Henry Holt and Company), p. 40.

²⁷ Joseph French Johnson, *Money and Currency* (Boston: Ginn and Company, 1906).

²⁸ *Ibid.*, p. 26.

said, money differs from other goods. "The supply of money value (i.e. of utility possessing universal exchangeability)" he said,²⁹ "is the product of the demand for money, is independent of the number of money units, and tends always to equal the demand." It can, therefore, never be deficient or in excess. "The desired amount of money utility will always be in existence, for it is created by the need for it." He summarized this part of his discussion as follows³⁰ : "Thus the supply of money varies in value automatically, always tending to equal the demand. Money is unique in this power to adjust its utility to the demand. The dollar is the only tool used which is capable of performing all the work asked of it. No limit can be put upon its exchangeability, and hence the service for which each dollar is potentially competent is indefinitely great."

In this distinction between the supply of money units and the supply of money value or money utility he aimed to reveal what he considered to be the vital point, the very essence, of the quantity theory. A given amount of money value may be embodied, he thought, in any number, small or large, of money units, and the amount embodied in a single unit must vary inversely with the number.

He repeatedly refers to the peculiarity of money as a commodity. Besides describing it as the only tool capable of performing all the work required of it, he affirmed that it possesses a single utility only, namely exchangeability, and on this account "seeks constant employment and under normal conditions is never idle. In this respect it is unlike every other good. Idle money is an abnormal thing. Men frequently hold wheat and other goods back from the market in the hope of getting a higher price. But money has no price and the business man sees no chance of making profit by holding it."³¹

An illuminating exposition of the quantity theory was given by J. Shield Nicholson in Part I, Chapter V, of his *A Treatise on Money and Essays on Monetary Problems*.³² He described³³ a "hypothetical market," the characteristic features of which are:

(a) "No exchanges are to be made unless money (which, to be quite unreal and simple, we may suppose to consist of counters of a certain size made of the bones of the dodo) actually passes from hand to hand at every transaction," credit and barter being alike unknown.

²⁹ *Ibid*, pp. 27, 28.

³⁰ *Ibid*, p. 28

³¹ *Ibid*, p. 16.

³² 2d ed. (London: Adam & Charles Black, 1893).

³³ Pp. 57, 58

(b) "The money is to be regarded as of no use whatever except to effect exchanges so that it will not be withheld for hoarding."

(c) There are "ten traders, each with one kind of commodity and no money, and one trader with all the money (100 pieces) and no commodities" who place "an equal estimation on all the commodities."

Under these conditions, he said, "all the money will be offered against all the goods, and every article being assumed of equal value, the price given for each will be ten pieces, and the general level of prices will be ten." Assuming that "each piece of money changes hands only once, . . . it is perfectly clear, under these suppositions, that if the amount of money had been 1000 pieces the general level would have been 100 pieces per article, and if only ten pieces, the price per article would have been one piece only."

The meaning and influence of "rapidity of circulation" he illustrated as follows³⁴: Modify assumption (c) so that "instead of the merchant with the money wishing for all the commodities equally," he only wants the whole of number one, whilst number one requires that of number two, and so on up to the ninth merchant, who wants the commodity of number ten, who wants the dodo bones. "In this case each article will be exchanged once, but the money will pass from hand to hand ten times, and the price of each article will be 100 instead of 10 as before."

This exposition clearly reveals the essential features of the theory, namely: that the value of money is entirely independent of the value of the material of which it is made (dodo bones being absolutely worthless things, i.e., having no commodity value but value as money only); that this value varies inversely with the number and the rapidity of the circulation of these units and that it is in no manner influenced by changes in the relative estimates people put upon different goods (one of the assumptions in this hypothetical market being either that the man with the money estimates each commodity *equally* or that each trader in turn wants *one* of the commodities only). Another merit of Nicholson's exposition is that it avoids the difficulty experienced by Walker, Johnson, and others in defining the terms *demand*, *supply*, and *money*, and in accurately explaining their meaning in terms of the actual elements of the medium of exchange and of the goods bought and sold on real markets.

In the most recent versions of this theory the so-called "equation of exchange" has been substituted for the old demand-and-supply for-

³⁴ Nicholson, *op. cit.*, p. 63.

mula, symbols on one side of an equation being used to designate the money and credit elements of the problem while those on the other represent the commodity elements. The sign of equality between the two sides of the equation suggests the nature of the argument to be substituted for the demand-and-supply doctrine of the older versions.

In the United States Professors Kemmerer and Irving Fisher and in England Mr. Keynes have adopted this *method of procedure* in their expositions of the quantity theory.³⁵ The equations employed by these men differ in complexity and degree of elaboration, Kemmerer's being the simplest and Keynes's the most complex. Fisher's has been the most widely adopted, the *American Economic Review* presenting a statistical version of it as an annual feature. It may, therefore, serve as a typical sample of this method of restatement of the old theory.

Fisher's equation is $MV + M'V' = PT$, M standing for the amount of money in circulation, V for the velocity or rapidity of the circulation of money, M' for the volume of bank deposits subject to check, V' for the velocity or rapidity of circulation of these deposits, T for the total quantity or volume of goods exchanged, and P for the prices of these goods.

The meaning of this equation is explained as follows,³⁶ leaving out of consideration for the time being $M'V'$: "This equation contains on the money side two magnitudes, viz. (1) the quantity of money and (2) its velocity of circulation; and on the goods side two groups of magnitudes in two columns, viz. (1) the quantities of goods exchanged (loaves, tons, yards) and (2) the prices of these goods. The equation shows that these four sets of magnitudes are mutually related. Because this equation must be fulfilled, the prices must bear a relation to the three other sets of magnitudes,—quantity of money, rapidity of circulation, and quantity of goods exchanged. Consequently, these prices must, as a whole, vary proportionally with the quantity of money and with its velocity of circulation, and inversely with the quantities of goods exchanged."

In order more fully to explain P and T he introduced two other sets of symbols, namely p, p', p'', p''' , etc. and Q, Q', Q'', Q''' , etc., the p 's standing for the prices of the individual goods traded on the market and the Q 's for the quantities of those goods. Then intro-

³⁵ See Kemmerer's *Money and Credit Instruments in Their Relation to General Prices* (New York: Henry Holt and Company, 1907); Fisher's *The Purchasing Power of Money* (New York: The Macmillan Company, 1922); and Keynes's *A Treatise on Money*, 2 vols. (New York, Harcourt, Brace and Company, 1931).

³⁶ *Purchasing Power of Money* (New York: The Macmillan Company, 1922), p. 18.

ducing $M'V'$ into the equation, he explained the relation which he believed to exist between its different elements as follows³⁷: M' varies directly with M , "because under any given conditions of industry and civilization deposits tend to hold a fixed or normal ratio to money in circulation . . . M and M' do not normally change V , V' or the Q 's, but only the P 's."

In making the explanations necessary for the construction of the index numbers required for the utilization of this equation difficulties were encountered in indicating the relation between the p 's and P and the Q 's and T , the first being that involved in the summation of the Q 's. Shall the units used in this summation be those ordinarily employed, i.e., tons, pounds, yards, gallons, etc.? Fisher answers,³⁸ No, because such a procedure would result in "a very arbitrary summation," producing different results, for example, according as "as we measure coal by tons or hundred-weights." He, therefore, decided that the unit should be "a 'dollar's worth' at some particular year, called the base year." T therefore, means the number of *dollars' worth* of goods exchanged, not, the quantity of goods measured by their conventional units.

Having thus introduced price (p) as a factor in the determination of T , it was necessary to define P , not as a new element in the equation, but as a modifier of the elements already there, namely the p 's and the Q 's which determine the content of T . He, therefore, defined it as a weighted arithmetical average of the ratios of the P 's of a given year to those of a base year.

It is unnecessary to enter into the complications of his calculation³⁹ of the average further than to say that an essential feature of it is a comparison of the total number of dollars' worth of goods sold in the base year with the total number of dollars that the goods sold in the given year would have yielded had they been sold at the prices ruling in the base year. In other words P is a *fraction*, a *percentage*, in the determination of which enter the p 's and Q 's embodied in T . In the expression PT , therefore, P and T are not separated, prices (p 's) and quantities of goods (Q 's) being constituent elements of both.⁴⁰

It is now pertinent to inquire whether these new statements and

³⁷ *The Purchasing Power of Money*, p. 151.

³⁸ *Ibid.*, p. 196.

³⁹ *Ibid.*, pp. 199-203.

⁴⁰ See Anderson's *The Value of Money*, pp. 162-164 and 363; and Wilson's review of Fisher's book in *Bulletin of the American Mathematical Society*, Apr., 1914, pp. 377-381.

expositions of the quantity theory have made it impregnable and rendered it satisfactory as an explanation of prices or of "the price level." Critics have answered these queries emphatically in the negative. They have noted the following defects:

1. In all forms of the statement of the theory, the new as well as the old, prices, the phenomena to be explained, are assumed. They all involve the summation of the quantity of goods sold upon the market, and the method of summation used by all is the price method, i.e., adding, averaging, etc., the prices at which the goods sold. All of the expositors of the theory have found it impossible to compare the quantity of money with the quantity of goods, an essential feature of the theory, without stating the two magnitudes in the same terms; the bushels, tons, yards, pounds, etc., in which the quantities of goods are conventionally stated had to be stated in terms of dollars, francs, marks, etc., before they could be summarized and compared with the number of dollars, francs, marks, etc., in circulation. To explain these prices is the problem, for which task obviously the quantity theory, in any of the terms in which it has yet been stated, is incompetent.

2. The problem of *price levels* is alleged to be quite independent of the problem of *individual prices*. Professor Fisher insists that "it should be clearly recognized that *price levels* must be studied independently of individual *prices*"⁴¹ and that "any individual price presupposes a price level."⁴² His critics on the contrary contend that a price level presupposes individual prices, that it is merely a numerical expression, in the form of an average, of such prices, and, therefore, that it cannot be studied independently of them; indeed, that the explanation of individual prices is the *sine qua non* of the explanation of the price level.⁴³

This violent contrast and conflict of views is due in part to a difference between the price concepts of the two parties. One associates prices with the medium of exchange, the other with the standard of value. The quantity theorists do not differentiate between the two. To them the phrase *standard of value* describes merely *one of the services* of the medium of exchange. To their critics it describes a thing which is independent of the medium of exchange and which may or may not be one of its elements. To these critics price is the numerical statement of the *value* of individual goods in terms of the *value* of this

⁴¹ *Op. cit.*, p. 175.

⁴² *Ibid.*, p. 180.

⁴³ See Anderson's *Value of Money*, Ch. XV.

thing, and *value* is conceived not as a ratio of exchange but as an essential factor in the determination of ratios of exchange. The one party thinks of the gold standard as having been "abandoned" and ceasing to function, when inconvertible notes take the place of coin as the circulating medium of a country; the other insists that it continues to function in that case, since the figures on the faces of the notes still mean a definite weight of gold. The former, therefore, explains the value of such notes by reference to their use as a medium of exchange solely, while the latter insists that the value of the standard commodity is an essential factor in the problem.

3. In all the versions of this theory the effect of credit on prices is explained by reference solely to the effect upon the volume of the circulating medium of the use of credit instruments as one of its constituent elements. The critics of the theory insist that this is but one of the aspects of this problem and by no means the most fundamental one.

4. In Fisher's "equation of exchange" version of the theory the critics have pointed out other defects. In his *The Value of Money*⁴⁴ Mr. B. M. Anderson noted the following:

(a) The equation is an identical proposition. There are not a goods side and a money side, as Fisher claims, but two money sides. "On one side of the equation we have M , a quantity of money, multiplied by V , an abstract number; on the other side of the equation, we have P , a quantity of money, multiplied by T , an abstract number. The product, one each side, is a *sum of money*. These sums are equal because they are identical. The equation asserts merely that what is *paid* is equal to what is *received*." There is, of course, no objection *per se* to an identical equation. It is only the value of such an equation as a revelation of causal relations that is questioned by Anderson.

(b) Anderson also questioned the arguments and interpretations of facts employed by Fisher in proof of his assertions regarding the relation between V , M , and T and between M' and M , on the basis of which assertions Fisher arrived at the conclusion that prices must "vary proportionally with quantity of money and with its velocity of circulation and inversely with the quantities of goods exchanged." In opposition to Fisher's contentions Anderson presents facts and arguments which indicate that changes in the M of Fisher's equation may cause compensating changes in V , that most of the influences which affect V also correspondingly affect T , that M is also influenced by T ,

⁴⁴ (New York: The Macmillan Company, 1917), p. 161.

and that M' is not solely determined by M but is also influenced by T . In other words, he shows that when changes take place in M or T or both, Fisher's equation may be satisfied by compensatory changes in the other elements of the equation without corresponding changes in P .

2. *Other Explanations of Prices.*

Economists⁴⁵ who are dissatisfied with the versions of the quantity theory that have been presented, and see no promise or even possibility of a satisfactory version, have explained prices without its assistance. They begin their analysis with the proposition that prices are the numerical expression of the ratios in which individual goods exchange for some one good, which they call the standard of value, this same standard being also used in making price bids and offers and in summations for all kinds of purposes, such as the levy of taxes, statements of the total amount of a person's, a corporation's, or a nation's wealth, and comparisons of the wealth totals of nations, regions, corporations, or individuals at the same and at different periods of time.

The price problem thus becomes that of the explanation of the *values* of the goods involved, including that of the standard commodity, for which no *special, independent* theory is required or employed, that used in this case being identical with the one used in all other cases.

Regarding the medium of exchange, since each of its elements has stamped or printed on it a figure or figures indicating the number of units of the standard commodity of the conventional kind for which it is supposed or desired or expected to be the equivalent in exchange, the problem of its valuation is that of explaining the why and the degree of its deviation from this equivalence, in case there is such deviation.

In case each of these elements is convertible on demand into the standard commodity, in the amount indicated by the figures stamped or printed on it, there is nothing to explain. A problem appears only in case convertibility is suspended or abandoned or in any way interfered with; then appears the phenomenon of depreciation, which calls for explanation. An essential feature of this explanation is the fact that inconvertibility is regarded as a species of default in an implied

⁴⁵ See Laughlin's *The Principles of Money* (New York, Charles Scribner's Sons, 1903) and *A New Exposition of Money, Credit, Prices*, 2 vols. (Chicago: Chicago University Press, 1931) and Scott's *Money and Banking*, 6th ed. (New York: Henry Holt and Company, 1926).

or expressed contract for payment; another is that, in the case of all forms of so-called paper money, the valuation influences obviously operative in the case of all other forms of credit instruments and daily illustrated on stock-exchanges and elsewhere are considered pertinent and applied; a third is that purely subjective influences are accorded a leading rôle. The volume of these elements or the total quantity in circulation is treated not as the sole, and in many cases not as the chief, factor in their valuation, but as one among many.

The explanation of the influence of the volume of the circulating medium on the value of the standard itself also marks a vital difference between the advocates and the critics of the quantity theory. The former insist that the standard of value is a coin, the value of which is derived solely from its use as a medium of exchange, its bullion value influencing it only to the extent that it limits the quantity of this medium. The critics on the contrary insist that the bullion value is the vital thing and consequently that the demand for the standard commodity for non-monetary purposes is an essential and ever-present factor in the determination of its value, of such magnitude as to vitiate the quantity theory explanation.

3. *Banking Theory.*

The older theories of banking were chiefly concerned with the use and regulation of note issues. The rapid growth of deposit banking and the use of checking accounts as a medium of exchange in recent times, especially during the last half-century, have pushed these aspects of banking into the foreground and resulted in some modification and extension of banking theory.

Noteworthy among these developments is the theory that deposits subject to check operate upon the national economy and affect prices in substantially the same manner as bank-notes and that in both cases the effects are explainable in terms of the quantity theory. Critics of the quantity theory note the resemblances between bank-notes and deposits subject to check but deny the utility of the quantity theory in the explanation of their effects upon the national economy, and especially upon prices. They note particularly that the volume of both note issues and deposits subject to check is quite as often the effect as the cause of price changes and that, in the cases in which it may be regarded as cause, its influence is not explainable by the quantity theory.

In the explanation of the relation between bank reserves and the

expansion of bank credit a theory has recently been advanced by Professor Chester A. Phillips⁴⁶ to the effect that, in the case of an individual bank, such expansion is limited to an amount only slightly in excess of the addition to its reserves, while "*in the banking system*" the possible expansion is several times the amount of the expansion of reserves. This apparently paradoxical statement is explained by the fact that Professor Phillips gives to the term *reserves* a different content in the two cases. In that of an individual bank he identified it with what he calls "primary deposits," which, according to his definition, include "cash or its readily convertible equivalent such as checks and drafts drawn on other banks, but not made in anticipation of the repayment of a loan." What the term includes, when applied to the banking system, he does not say, but obviously in that case it can include "cash" only, since the claims of banks against each other cancel when all are included in the calculation.

It is not clear, therefore, that Phillips's theory differs substantially from that generally held nor, if so, in what respect and to what extent. It is valuable, however, as an explanation of what has sometimes had the appearance of a conflict of opinion between economists and bankers. The latter usually speak of loaning their deposits, while economists emphasize the fact that loans create deposits. Professor Phillips's analysis emphasizes the distinction between what he calls "primary" and "derivative" deposits, the latter meaning those which result directly from loans, and shows that in the case of the banking system the latter predominates, while in that of the individual bank this is not necessarily the case, though he exaggerates when he says⁴⁷ that "*for an individual bank* loans are the offspring of deposits."

In recent times, especially since the World War, economists have reconsidered and to some extent revised older theories regarding the operation and policies of central banks. The public functions and responsibilities of these banks have always been emphasized, especially in regard to the regulation of discount rates and of the international flow of the precious metals, but recently new theories have been devised for their guidance in these and other matters. Formerly the prevailing theory was that the safety and profits of the institution itself were adequate guides to policy, but nowadays the responsibility of these banks for the control of the expansion and contraction of credit throughout the banking system is emphasized, and theories are cur-

⁴⁶ *Bank Credit* (New York: The Macmillan Company, 1920).

⁴⁷ *Ibid.*, p. 64.

rent regarding the manner in which such control can be exercised and made effective, as well as regarding why such control is desirable.

Regarding the need and desirability of such control, the theories are vague and for the most part unformulated. They appear to be the result of the conviction that automatic regulation is inefficient and inadequate and is responsible for rash speculation, inequitable distribution of credit, and, in part at least, for the alternation between periods of boom and depression which characterize modern economic history and the effects of which seem to become more and more serious as time advances and the complexities of economic life increase.

The theories regarding the methods of credit control concern chiefly the effects of the manipulation of discount rates and the open-market operations of central banks. Their weakness consists in a tendency to exaggerate the power of these banks and in a failure adequately to appreciate the degree of independence of the individual banks and other parts of our financial mechanism and the difficulty of segregating and tracing the effects of a single action or force in a situation in which a constantly changing number and variety of actions and forces are operating at the same time. It is questionable whether the science of economics has yet reached a stage of advancement at which it is possible to formulate valid and useful theories regarding the effects of the combined action of the constantly changing complex of forces which characterizes modern economic life, and it is precisely this task that these theorists undertake.

4. *The Stabilization of Prices.*

A fruitful source of speculation and theorizing in recent times has been the conviction that the level of prices should be and can be "stabilized." The harm that may be done by fluctuating prices has long been recognized and frequently discussed. Examples of it are to be found on every hand and are familiar to everybody. The desire to find a remedy naturally resulted in attempts to find the cause or causes of the phenomena, and to this end the older economists noted that changes in the value of the standard commodity affect the prices of all other commodities and, since this commodity is also the almost universal standard of deferred payments, that changes in its value are bound seriously to interfere in the relations between debtors and creditors, always to the financial injuring of one party or the other. Stabilization of the value of the standard commodity thus became a desideratum.

Among means to this end that have been suggested are bimetallism and the utilization of substitutes for the use of the standard metal in the medium of exchange. The former did not prove to be theoretically tenable or practically feasible, nor the latter adequate, though to a degree efficient.

As a substitute for stabilization of the value of the standard commodity, the adoption of an independent standard for deferred payments, the so-called tabular standard, has been urged by many economists on the theory that a group of commodities could be found the fluctuations in the value of which would be less than that of the standard commodity.

The wide and frequent fluctuations in prices that have characterized recent economic history, especially in the period since the outbreak of the World War, have stimulated increased study of this subject and promoted further search for remedies for the evils involved. Much research has been devoted to the measurement of price fluctuations by means of the index-number device, and many stabilization plans have been suggested.⁴⁸ Several theories have guided this research and determined the ends to be achieved by these plans.

One is that, by classification, averaging, weighting, and other devices applied by statisticians to price statistics, it is possible to segregate those influences which operate upon prices through the standard of values from those that operate through the multitude of other commodities that are bought and sold on the markets and thus to measure the fluctuations in the *value* of the standard commodity.

In estimating the validity of this theory it is necessary to avoid the confusion that may arise from the two meanings of the term *value* in common use among economists, namely, "purchasing power" and "marginal utility" (or "subjective" and "objective," or "internal" and "external," value). The question of definition of terms is not here in question, but the assumption, not infrequently consciously or unconsciously made by those who make use of the theory under consideration, that, when the purchasing power of the standard commodity has been determined and measured, the causes which determine that purchasing power and cause it to vary have also been revealed or at any rate separated into two groups, one consisting of those that operate on the commodity, and the other of those that operate on the other side of the equation of exchange. The only basis for this assumption,

⁴⁸ See Joseph Stagg Lawrence's *Stabilization of Price* (New York: The Macmillan Company, 1928).

if indeed there is any basis for it, is the further assumption that the devices employed in the selection, averaging, weighting, etc., of the price statistics, manipulated, in some unexplained manner, *neutralize* the effect of all the influences operating on that side of the equation of exchange. No statistician, however, has as yet supplied convincing proof of the validity of this assumption. Even if it could be demonstrated that such neutralization had been effected (through balancing the increases in the prices of part of the commodities comprised in the group manipulated by the decreases in the prices of the remainder), it would not prove that such balancing would be effected in any other period of time, and, consequently, that the change in price levels revealed by comparison of the averages for two periods was produced by influences operating on the standard commodity alone.

Another theory is that stabilization of the price level would remedy the evils, or at least the major evils, resulting from fluctuating prices. No group of commodities can be selected the stabilization of the average price of which would guarantee the stabilization of the innumerable individual and group prices the fluctuations of which cause the troubles that need remedy. Each group of manufacturers is interested in the stabilization of different groups of prices, the farmers in still different groups (the cotton farmers' group differing from the grain farmers'), the laboring classes in other groups, those who derive incomes from interest-bearing securities in still others, etc., etc. The most that could legitimately be urged in favor of any plan for stabilization that might be found practicable is that it might *in some degree mitigate for certain classes* the evils of fluctuating prices.

Regarding the various plans for stabilization that have been suggested, it may be said that the practical difficulties involved are in most cases great and in many cases insurmountable and that the theoretical ones are usually very serious. All things considered, it seems probable that more of real importance can be accomplished by analysis of the influences operating upon the demand and the supply of the standard commodity and by the manipulation of these influences than by the more ambitious schemes of stabilization.

CHAPTER XXVIII

REVOLTS AGAINST "ORTHODOX ECONOMICS" DURING THE LAST HALF-CENTURY

The theoretical development since 1870, sketched in the preceding chapters, was accompanied by a revival of the revolt against economic theory represented in the preceding generation chiefly by the Old Historical School. This movement was doubtless stimulated by many conditions, among them being (a) the writings of Darwin, Spencer, and others, who saw in the idea of evolution a new approach to the study of society; (b) the rapid changes and increasing complexity of economic life, the urgent problems of which the contemporary political economy seemed unable to solve; and (c) a natural reaction against theoretical studies based upon deductions from a few simple premises such as those employed by Jevons, the Austrians, and the so-called neo-classicists. Typical representatives of this movement are the New Historical School, the Institutionalists, and the Statistical School.

A. THE NEW HISTORICAL SCHOOL

1. *Gustav Schmoller.*

In Germany under the leadership and inspiration of Gustav Schmoller, who during the best part of a long life was professor of economics in the University of Berlin, the Historical School was revived and developed. Like his predecessors of the Old Historical School, Professor Schmoller believed that the premises of the science of economics must be sought for the most part in generalizations based upon historical studies, but he believed that the older school had attempted such generalizations before an adequate foundation for them had been laid. In an article published in 1895 (*Handwörterbuch der Staatswissenschaften*, article "Volkswirtschaft") he wrote¹: "The older historical political economy desired too quickly to draw conclusions from the facts of universal history. We now see that laborious special investigations are needed to furnish the basis for the study of economic and social history and for satisfactory economic theory."

¹ Pp. 545. 546.

To such studies, therefore, Schmoller directed his own energies and those of his students for many years. The results of these were published in books and monographs, especially in the *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im deutschen Reich und in Staats- und sozialwissenschaftliche Forschungen*, which he founded and edited, and in the *Zeitschrift für Sozial- und Wirtschaftsgeschichte*. His own chief contributions were *Geschichte der deutschen Kleingewerbe im 19. Jahrhundert* (1870); *Strassburger Tucher- und Weberkunst* (1879); "Wirtschaftliche Politik Preussens im 18. Jahrhundert" (*J. G. V. V.*, 1884-1887); "Die Thatsachen der Arbeitsteilung" (*ibid.*, 1890-1893); *Zur Social- und Gewerbepolitik der Gegenwart* (1890); *Einige Grundfragen der Socialpolitik und Volkswirtschaftslehre* (1898); *Umriss und Untersuchungen zur Verfassungs-Verwaltungs- und Wirtschaftsgeschichte* (1898); and *Acta Borussica* (1892-1900).

In his later life Professor Schmoller felt that adequate material for some generalizations at least had been accumulated, and he undertook the task of making them in his *Grundriss der allgemeinen Volkswirtschaftslehre*, the first volume of which appeared in 1900 and the second in 1904. In this monumental work his mature views on the nature and methods as well as the content of the science are expounded. It probably represents better than any other publication the historical economists' conception of the nature and present state of the science.

In the introduction Professor Schmoller made the following statements regarding methods and laws: "The science of political economy will paint an accurate picture of economic phenomena in their contemporary and time aspects by comparing and analyzing observations and testing their reality and accuracy, by arranging correct observations into a system of concepts or ideas derived from a study of their similarities and differences and finally by attempting to discover in the material so organized typical regularities and fundamental causal connections. The chief problems of real science are (1) correct observation, (2) good definition and classification, and (3) the finding of typical forms and causal explanations. In the different stages of the progress of science now one and now the other of these problems occupies the foreground. Now the search for facts and now the intellectual mastery of these facts through concepts, arrangement into series, causal explanations and hypotheses is the important business."² In the discussion which follows he has the following to say

² *Grundriss*, I, 100.

about laws: "While we do not admit a knowledge of historical laws, we do speak of economic and statistical laws. To be sure, we mean by them in part only series of phenomena which repeat themselves regularly and typically, i.e., so-called empirical laws whose causal relations are either not yet discovered or at least not yet quantitatively measured. Of real laws, i.e., causal connections whose constant methods of operation we not merely know but have quantitatively measured, even natural science knows very few. Psychic forces will indeed always elude quantitative measurement, but it is characteristic of political economy that the name, laws, is applied to the numerical results of attempts to measure the constant changes in the operations *en masse* of psychic-social forces. Witness the expressions, population-, wage-, price-, and rent-laws."³

From these and many other expressions which might be quoted it is obvious that Schmoller believed in the existence of economic laws and regarded their discovery as one of the chief purposes of the science; and in his discussion of the methods appropriate to correct observation, concept-making, classification, and the discovery of causal connections he clearly expressed belief in the use of deduction and hypothesis as well as induction, indeed in all the methods which we nowadays describe by the word *theory*. What he objected to was the narrowing of the science to deductions from a small number of simple premises such as characterize the work of the classical economists, the Austrians, and most so-called theoretical economists, and faith in the validity of conclusions based upon such deductions.

He was also skeptical of the ability of economists ever to discover so-called historical laws, and in the concluding chapter of the *Grundriss*⁴ he went so far as to express doubt of the ability of economic science to establish the existence of any element of unity in the economic life of mankind or of any trace of uniform development or even of progress.

In his exposition of the content of the science he did not hesitate to make deductions from the characteristics of human nature as well as from generalizations based on historical facts, and he made frequent appeals to environment, ethnology and psychology. A brief analysis of the contents of the *Grundriss* will make its leading characteristics clear.

It consists of an introduction and four books. The former includes

³ *Ibid.*, I, 108, 109.

⁴ II, 562

a discussion of the nature and limits of the science, its psychological and moral foundations, and its literature and methods. The first book is entitled "Land, People and Technique"; the second, "The Social Constitution of National Economy"; the third, "The Social Process of the Circulation of Goods and the Distribution of Income"; and the fourth, "The Development of National Economic Life in General."

The second part of the introduction includes nine chapters, which are broadly sociological in character. The topics discussed are (a) the purposes and means of social life; (b) the psychophysical means of promoting mutual understanding between men, that is, language and writing; (c) the sphere of spiritual consciousness and the collective powers; (d) individual feelings and needs; (e) human impulses; (f) acquisitive impulses and the economic virtues; (g) the nature of morality, the ethical ordinances of social life, custom, justice, and morals; and (h) the general connections between economic and moral life.

The four chapters of the first book treat respectively the dependence of the economy of a people upon external nature, races, and peoples; the elements and movements of population; and the economic significance of the development of technique. In the second book are discussed family economy; the settlement and manner of living of the social groups, city and country; the economy of the state and the other political units; the social and economic division of labor; the nature of property and the characteristic features of its distribution; the formation of social classes; and the development of the forms of business enterprise and activity. Book III is subdivided into nine chapters which treat respectively exchange, markets, and commerce; economic competition; measures, weights, coins, and money; value and price; property, capital, and credit, including rent and interest; the organs of credit and their recent development, including banking; labor relations, labor laws, the labor contract and wages; the most important of the newer social institutions embracing those pertaining to the care of the poor, insurance, employment, labor-unions, and courts of arbitration; and income and its distribution, with the sub-heads, profits, rent, and income from property and from labor. Book IV treats the oscillations and crises of national economies; class conflicts, class domination and its suppression by means of the state, law, and reform; the economic relations and conflicts between states, including commercial policies; and the economic and general develop-

ment of mankind and of individual nations, including their rise, progress, and decline.

From this enumeration of the topics treated it is evident that the characteristic feature of Professor Schmoller's work is the breadth of the field covered rather than the methods employed. He has discussed every aspect of the economic life of man and in so doing has been obliged to use all the methods employed by his predecessors and contemporaries. He has used historical and statistical data whenever they were suitable and available, making generalizations and deductions from them, but no less has he used data derived from other sources, such as other sciences and common observation, and he has reasoned from them as premises. He has also availed himself, to a limited extent, to be sure, of some of the theories of the classical and Austrian schools, finding them useful in the explanation of the phenomena with which he was dealing, but he avoided what he regarded as the chief fault of the classical school, namely that of confining the science to deductions from premises derived from the consideration of a so-called "economic man." The man with whom he tried to deal and about whose activities he reasoned was the actual man revealed by history, observation, and the scientific studies of psychologists, biologists, archæologists, and other specialists who have made his nature and activities the subject of their researches.

The realism which characterizes the work of Professor Schmoller and his German contemporaries and successors cannot be put exclusively to the credit of the Historical School. He was the heir of a tradition which dates back to the Cameralists of the seventeenth and eighteenth centuries, who were primarily interested in training young men for the civil service of their respective states and principalities and who were therefore obliged to deal with the facts and conditions with which civil servants were concerned. The writings and lectures of these men were the germs from which the political economy of Germany developed, and even during the last quarter of the eighteenth and the first half of the nineteenth century, when the influence of the English classical school was the greatest in Germany, a German treatise on political economy was very unlike an English one in scope and content. It dealt primarily with the facts of economic life, theory in most cases playing a subordinate rôle.

In the seventies of the last century a controversy arose in Germany as the result among other things of the establishment in 1872 of the

Verein für Sozial-Politik, an organization primarily devoted to social reform. Before that date the influence of the Old Historical School had gradually permeated the entire country and become dominant, especially in the universities. Its adherents now became associated with various other groups who were dissatisfied with the Classical Political Economy, and the issues the Old Historical School had raised were temporarily obscured. Professor Schmoller became the leader in the revival of these issues and in one of the several contemporary attempts made in Germany to reconstruct the science. Several other persons who had a part in this reconstruction work assumed a less uncompromising attitude toward the older economics, among them Adolph Wagner and Gustav Schonberg, who edited and partially wrote elaborate treatises or handbooks.⁵ These and others attempted to preserve the realism of the Historical School without throwing overboard so much of the work of the older economists as Professor Schmoller and his followers were inclined, especially at first, to do.

2. Cliffe Leslie.

In Great Britain one of the most important representatives of the New Historical School was the Irish economist, T. E. Cliffe Leslie, who was connected with Trinity College, Dublin, for a considerable period of time, first as student and later as instructor. In the seventies of the last century he wrote a number of essays⁶ on the nature and methods of political economy which were published in the periodicals of the time, most of them in the *Fortnightly Review*. Of these the most important for our purposes were one on "The Political Economy of Adam Smith" published in 1870 and another "On the Philosophical Method in Political Economy" published in 1876. Others worthy of mention were entitled "Utilitarianism and the Summum Bonum," "The History of German Political Economy" (a review of Roscher's *Geschichte der national Oekonomie im Deutschland*), "John Stuart Mill," "Professor Cairnes," "Mr. Bagehot," "Economic Science and Statistics," and "Political Economy and Sociology."

In the article on Adam Smith's political economy he shows that *The Wealth of Nations* was a product of, or reflects the conditions of, the age in which Smith lived and that it came very far short of expounding "a body of national laws in the true sense, or of universal

⁵ See Wagner's *Lehr- und Handbuch der politischen Oekonomie* and Schönberg's *Handbuch der politischen Oekonomie*.

⁶ These essays with others were republished in 1879 in a book entitled *Essays in Political and Moral Philosophy*. Our quotations are from that book.

and immutable truths." For its proper interpretation he argued that a knowledge of Smith's "philosophy as a whole" is necessary and that the basis of that philosophy is "the theory of the Code of Nature" commonly believed by the philosophers of the eighteenth century, "the theological conception of that great, benevolent, and all-wise Being, who directs all the movements of nature and who is determined to maintain in it at all times the greatest quantity of happiness" and "the idea of civil and religious liberty, of resistance to arbitrary government and unequal laws, of confidence in individual reason and private judgment as opposed to the dictates of external authority."⁷ He admits that Smith also made use of keen observation and the study of history and of contemporary life and society and asserts that he was saved from some of the errors of his successors by this fact.

He characterized the political economy of England in his day as "an assemblage of speculations and doctrines which are the result of a particular history, colored even by the history and character of its chief writers." In reply to a statement made by a Mr. Lowe in a debate in the House of Commons on the Irish Land Bill he said "that, so far from being of no country and unchangeable from age to age," as Mr. Lowe had asserted, "it [political economy] had varied much in different ages and countries, and even with different expositions in the same age and country."⁸

In the essay "On the Philosophical Method of Political Economy" he made an analysis and criticism of some of the fundamental conceptions of the classical school, notably of their ideas concerning the "nature of wealth," "the desire of wealth," and "the conditions which govern the amount of wealth." He declares that their definition of wealth as "things which possess exchangeable value" is "a mere abstraction throwing no light" on the differences and mutations that have taken place in the kinds and forms of wealth in different stages of society and in different nations and among different classes and individuals at a given time "or on the laws of society and social evolution by which they are governed."⁹ These matters, entirely neglected by the classical school, he considers of primary importance in a science that makes wealth the subject of its investigation.

"The desire for wealth," he says,¹⁰ "is a general name for a great variety of wants, desires, and sentiments, widely differing in their

⁷ *Essays*, pp. 148, 153, 156.

⁸ *Ibid.*, p. 148.

⁹ *Ibid.*, pp. 217, 219.

¹⁰ *Ibid.*, pp. 220, 221

economical character and effect and undergoing fundamental changes in some respects, while preserving an historical continuity in others." It is impossible to show the effect of these on the production, exchange, and distribution of wealth by treating them as a mere abstraction described by the phrase "the desire of wealth." "An investigation of the diverse and varying desires compounded in the phrase 'desire of wealth' would be requisite," he says, "were we even, with some of that school, to regard political economy as a mere theory of exchanges and value. For the value of commodities rises and falls with changes in the degree and direction of these desires."

He sums up as follows the classical doctrine regarding "the conditions which govern the amount of wealth" ¹¹:

"It exists only in the form of a few propositions and doctrines, such as that under the influence of the desire of wealth, human energy is constantly devoted to its acquisition; that its amount is largely augmented by the division of labor; that of the three great instruments of production, the supply of two, labour and capital, tends to increase, but that of the third, land, remains stationary, while its productiveness tends to decrease with the growth of population; that wealth is increased by productive and diminished by unproductive expenditure and consumption." He takes exception to many of these propositions.¹²

Regarding the first he says: "The desire for it [wealth] is by no means necessarily an incentive to industry, and still less to abstinence. War, conquest, plunder, piracy, theft, fraud, are all modes of acquisition to which it leads."

"Unproductive expenditure and consumption . . . do not necessarily tend to diminish wealth. They are the ultimate incentives to all production, and without habits of considerable superfluous expenditure . . . a nation would be reduced to destitution."

"The main questions respecting the influence alike of the 'desire of wealth,' and of expenditure and consumption are—to what kinds of wealth, what modes of acquisition, and what actual uses do they lead in different states of society, and under different institutions, and other surrounding conditions? To what laws of social evolution are they subject in the foregoing respects?"

He accompanies these criticisms with many statements descriptive of what he conceives to be the truth and indicative of the method of procedure which he approves in opposition to what he calls the de-

¹¹ *Essays*, p. 222.

¹² *Ibid.*, pp. 222, 223, 224.

ductive method of the classicists. The following are some of them:

"The truth is that the whole economy of every nation, as regards the occupations and pursuits of both sexes, the nature, amount, distribution and consumption of wealth, is the result of a long evolution in which there has been both continuity and change, and of which the economical side is only a particular aspect or phase. And the laws of which it is the result must be sought in history and the general laws of society and social evolution."

Speaking of Roscher's discussion regarding the legal background of national economies he says:

"But the more general proposition may be advanced that every successive phase of social progress presents inseparably connected phenomena to the observation of the economist, the jurist, the mental, the moral, and the political philosopher."¹³

"And it may be affirmed that the means by which wealth is acquired in successive states of society are subject to regular laws of social evolution, as a whole, although only in the earlier stages is their operation easily traced."

"A priori political economy has sought to deduce the laws which govern the direction of human energies, the division of employments, the modes of production, and the nature, amount, and distribution of wealth, from an assumption respecting the course of conduct prompted by individual interest; but the conclusion which the study of society makes every day more irresistible is, that the germ from which the existing economy of every nation has been evolved is not the individual, still less the mere personification of an abstraction, but the primitive community—a community one in blood, property, thought, moral responsibility, and manner of life; and that individual interest itself, and the desires, aims, and pursuits of every man and woman in the nation has been moulded by and received their direction and form from the history of that community.

"What are called economical forces are not only connected, but identical with, forces which are also moral and intellectual. The desires which govern the production, accumulation, distribution and consumption of wealth are passions, appetites, affections, moral and religious sentiments, family feelings, aesthetical tastes, and intellectual wants."¹⁴

Criticizing Cairnes's statement of the "principles of human nature and the laws and events, physical, political and social, of the external world" with which the economist starts, he says¹⁵: "What has still

¹³ *Ibid.*, p. 228.

¹⁴ *Ibid.*, p. 230.

¹⁵ *Ibid.*, p. 241.

to be done is to investigate the actual phenomena, and discover their ultimate causes in the laws of social evolution and national history."

"The phenomena of wealth may be the subject of special inquiry by a special set of inquirers, but the laws of co-existence and sequence by which they are governed must be sought in the great Science of Society, and by the methods which it holds out."

He summarizes his discussion as follows¹⁶:

"The abstract and a priori method yields no explanation of the laws determining either the nature, the amount, or the distribution of wealth; . . . On the other hand the philosophical method must be historical, and must trace the connection between the economical and the other phases of national history. As regards the nature of wealth, it has been shown that essential differences in its kinds and constituents, profoundly affecting the economical condition of mankind, manifest themselves at different stages of progress, and that their causes must be sought in the entire state of society, physical, moral, intellectual, and civil. The amount of wealth has been proved to depend on all the conditions determining the direction of employments of human energies, as well as on the state of the arts of production, and the means of supply. And the distribution of wealth has been shown to be the result, not of exchange alone, but also of moral, religious, and family ideas and sentiments, and the whole history of the nation. The distribution effected by exchange itself demonstrably varies at different stages of social progress, and is by no means in accordance with the doctrines of a priori political economy. Every successive stage—the hunting, the pastoral, the agricultural, the commercial stages, for example, has an economy which is indissolubly connected with the physical, intellectual, moral, and civil development; and the economical condition of English society at this day is the outcome of the entire movement which has evolved the political constitution, the structure of the family, the forms of religion, the learned professions, the arts and sciences, the state of agriculture, manufactures and commerce. The philosophical method of political economy must be one which expounds this evolution."

3. *John Kells Ingram.*

The views of another Irish economist, a friend and associate of Cliffe Leslie in Trinity College, Dublin, also deserve description in this connection. In 1876 Mr. J. K. Ingram delivered an address before the Section of Economic Science and Statistics of the British Association for the Advancement of Science at its meeting in Dublin, entitled "The Present Position and Prospects of Political Economy." In this

¹⁶ *Essays*, pp. 241, 242.

he criticized the classical school and expressed a conception of the nature, scope, and appropriate methods of the science closely resembling that of Schmoller and Leslie. His views were further elaborated in subsequent publications, notably in his *History of Political Economy*, which first appeared in 1885 in the ninth edition of the *Encyclopædia Britannica* and subsequently in book form.¹⁷

Ingram was a disciple of August Comte and believed that one of the chief defects of the political economy of his day was its separation from other social sciences. Like Comte he believed in a general social science, the chief task of which should be the explanation of the evolution of social institutions, among which economic institutions constitute but a single group, vitally related, however, to all the others.

In his *History of Political Economy*¹⁸ he describes the leading features of sociology as Comte conceived it as follows: "(1) it is essentially *one* science, in which all the elements of a social state are studied in their relations and mutual reactions; (2) it includes a dynamical as well as a statical theory of society; (3) it thus eliminates the absolute, substituting for an imagined fixity the conception of ordered change; (4) its principal method, though others are not excluded, is that of historical comparison; (5) it is pervaded by moral ideas, by notions of social duty, as opposed to the individual rights which were derived as corollaries from the *jus natural*; and (6) in its spirit and practical consequences it tends to the realization of all the great ends which compose 'the popular cause'; yet (7) it aims at this through peaceful means, replacing revolution by evolution."

In his exposition of the methods appropriate to this new science Comte explained the distinction between social statics and social dynamics, "the former studying the laws of social co-existence, the latter those of social development," and drew an analogy between the procedure of the biologist and that of the sociologist. Both must study "the structures and functions which are exhibited by evolution as they exist at the several points of an ascending scale," and in the case of the sociologist "the several successive stages of society will have to be systematically compared, in order to discover their laws of sequence, and to determine the filiation of their characteristic features."

¹⁷ The latest edition of this book was published in 1915, after Ingram's death, with an introduction by Professor Richard T. Ely and a supplementary chapter by Professor William A. Scott.

¹⁸ New and enlarged ed. (London: A. & C. Black, Ltd., 1915), pp. 191, 192.

These methods apply to "the economic no less than to other branches of social speculation," with the result that "a separate economic science is, strictly speaking, an impossibility, as representing only one portion of a complex organism, all of whose parts and their actions are in a constant relation of correspondence and reciprocal modification. Hence, too, it will follow that, whatever useful indications may be derived from our general knowledge of individual human nature, the economic structure of society and its mode of development cannot be deductively foreseen, but must be ascertained by direct historical investigation."¹⁹

Ingram was, therefore, in general agreement with the Historical School, believing as he did in the so-called historical method. If he differed with other members of this school in any essential respect it was probably in his adherence to the views of Comte, from whom rather than from the Germans he derived his inspiration and his basic ideas. His attitude toward the political economy of his day is summarized in a preface he wrote to R. T. Ely's *Introduction to the Study of Political Economy* in which he characterized as follows what he called "the new school of economics"²⁰:

"I. As to the place of *Economics* in the general system of the *Sciences*, it holds that the study of wealth cannot be isolated, except temporarily and provisionally, from the other social phenomena; that it is essential to keep in view the connections and interactions of the several sides of human life. There is, in fact, properly speaking, but one great Science of Sociology, of which Economics forms a single chapter, which must be kept in close relation to the others.

"II. It has shown that Economic science, like Sociology in general, must be—to employ the useful terminology of Comte—not *statical* only, but also *dynamical*. It must not assume one fixed state of society, and suppose that it has to deal only with laws of coexistence, ignoring those of succession. It is now universally acknowledged that societies are subject to a process of development, which is itself not arbitrary, but regular; and that no social fact can be really understood apart from its history. Hence the 'pocket-formulas,' in favour with the older school, which were supposed to suit all cases and solve all problems, have lost the esteem they once enjoyed, and Economics has become *historical* in its method, the several stages of social evolution being recognized as having different features, and requiring in practice a modifying intervention which ought to vary from one stage to another.

¹⁹ Ingram, *op. cit.*, pp. 193, 194.

²⁰ Pp. xvii–xix.

“III. While recognizing the real, and not inconsiderable, place which belongs to Deduction in Economics, as in other Sociological studies it holds, that inductive research must preponderate. Instead of constructing an abstract ‘economic man,’ and deducing from one or two principles of action by which alone he is supposed to be activated all the economic phenomena of Society, we must, as in the other positive sciences, ascertain what the social facts are, and, only after this inquiry has been completed, endeavor to trace them to their sources in the constitution of the external world, in human nature, and in the contemporary circumstances of Society. And a most valuable organ of research must be that specialized form of Induction known as Comparison, which is best adapted to the study of ‘historic filiation.’

“IV. With these intellectual movements have been combined new tendencies in sentiment and moral tone. There has been what Professor Gide, the ablest representative of the new School in France, has well described as *un grand degel*—“a great thaw.” A more humane and genial spirit has taken the place of the dryness and hardness which once repelled so many of the best minds from the study of Economics, and won for it the name of ‘the dismal science.’ In particular, the problem of the Proletariate, of the condition and future of the working classes—has taken a powerful hold on the feelings, as well as the intellect, of Society, and is studied in a more earnest and sympathetic spirit than at any former time.”

4. W. J. Ashley.

Another noteworthy adherent of the New Historical School was W. J. Ashley, at one time professor of economic history in Harvard University, but later affiliated with the University of Birmingham, England. He was an Englishman by birth and education, having been at one time Fellow of Lincoln College, Oxford. One of his most important publications was entitled *An Introduction to English Economic History and Theory*, Part I, entitled *The End of the Middle Ages*, published in 1893.

In the preface to Part I he said that economic science had been modified by two influences, “historical studies and the application to society of the idea of evolution,” the inspiration to the first having come chiefly from Savigny, who through history laid “the foundation of a new method of jurisprudence, the value of which has been signally illustrated in our own time by Maine,” and to the second from Hegel, who conceived “an orderly evolution of society . . . as the progressive revelation of spirit”; from Comte, who conceived it “as the growth of humanity”; and from Spencer, who conceived it

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"as the adaptation of the social organism to its environment."²¹ As modified by these influences, the science, he thought, could be characterized as follows²²:

"(1) Political Economy is not a body of absolutely true doctrines, revealed to the world at the end of the last and the beginning of the present century, but a number of more or less valuable theories and generalizations.

"(2) No age, since men began to speculate, has been without its economic ideas. Political Economy was not born fully armed from the brain of Adam Smith or any other thinker: its appearance as an independent science meant only the disentanglement of economic from philosophical and political speculation.

"(3) Just as the history of society, in spite of apparent retrogressions, reveals an orderly development, so there has been an orderly development in the history of what men have thought, and therefore in what they have thought concerning the economic side of life.

"(4) As modern economists have taken for their assumptions conditions which only in modern times have begun to exist, so earlier economic theories were based, consciously or unconsciously, on conditions then present. Hence the theories of the past must be judged in relation to the facts of the past, and not in relation to those of the present.

"(5) History seems to be proving that no great institution has been without its use for a time, and its relative justification. Similarly, it is beginning to appear that no great conception, no great body of doctrines which really influenced society for a long period, was without a certain truth and value, having regard to contemporary circumstances.

"(6) Modern economic theories, therefore, are not universally true; they are true neither for the past, when the conditions they postulate did not exist, nor for the future, when, unless society becomes stationary, the conditions will have changed."

The influences which have thus modified the conception of the nature of the science have also produced, says Professor Ashley, a difference of opinion regarding the methods best adapted to the investigation of its phenomena. With the methods pursued by Ricardo, John Stuart Mill, and Cairnes he contrasts those which "proceed by way of historical inquiry, and the observation of actual facts." Those who pursue this latter method, he says,²³ "try to free their minds at the outset of all *a priori* theories, and to see things as they actually are and have been, using deductive reasoning only as an occasional help

²¹ W. J. Ashley, *An Introduction to English Economic History and Theory*, 3d ed. (New York: G. P. Putnam's Sons, London: Longmans & Co., 1894), pp. ix and x.

²² *Ibid.*, pp. x and xi.

²³ *Ibid.*, pp. xii and xiii.

in interpreting the results of their investigation. Among these, again, there is considerable divergence of opinion as to the kind of results to be aimed at, and the shape Political Economy should assume. An increasing number,—‘the historical school’ in the strict sense of the word,—hold that it is no longer worth while framing general formulas as to the relations between *individuals* in a given society, like the old ‘laws’ of rent, wages, profits; and that what they must attempt to discover are the laws of social development—that is to say, generalizations as to the stages through which the economic life of society has actually moved. They believe that knowledge like this will not only give them an insight into the past, but will enable them the better to understand the difficulties of the present.”

B. INSTITUTIONAL ECONOMICS

In recent years, especially in the United States, a group of economists has appeared which must be distinguished from the New Historical School as well as from the so-called orthodox economists. They criticize all other groups, including the Historical School, for whose so-called laws of development they have quite as little respect as for the theories of the Classical School or the Austrians. So far their work has been chiefly critical, but they seem to have set before themselves as a goal the study of what they call institutions, both in their evolutionary and their contemporary aspects, not relying to the same degree as the New Historical School upon history as a tool, but more upon biology, psychology, archæology and anthropology. They claim to be in search of facts, of reality as a basis for their work, instead of a priori assumptions and abstractions, but they do not hesitate to make use of abstraction, deduction, hypotheses, generalizations, and all the other theoretical devices.

Another characteristic of this group, at least of most of those who have expressed their views in publications, is their dissatisfaction with existing conditions and institutions, not the mild kind of dissatisfaction which every one feels who realizes the imperfection of even our best efforts and the serious character of the economic and other social problems that confront us, but the deeper, more thoroughgoing dissatisfaction of the radical. It is usually impossible to classify these with other radicals, Socialists for example, though they probably co-operate with the radical more frequently than with the more conservative groups. Their radicalism is *sui generis*. It appears to grow out of the conviction that change, especially in economic conditions and

institutions, is the normal thing and that institutions normally lag behind in their development and are never what they should be.

The founder of this school, if it may be called such, and during his lifetime its chief inspiration and representative, was Thorstein Veblen, an erratic, cynical genius, whose keen mind, wide knowledge outside as well as inside the realm of economics, and facile pen were used with great skill to shatter and undermine confidence in the economics of both the past and the present. Upon a considerable number of the younger economists of the present time in the United States his influence has been great, though probably few of them would be willing to be classed as his followers. A brief statement of a few of his leading ideas will suffice to indicate what this group seems to stand for.

Veblen's views²⁴ are expressed in the following publications: a series of essays published first in periodicals in the period 1898 to 1909 and later (1918) in book form under the title *The Place of Science in Modern Civilization and Other Essays*; *The Theory of the Leisure Class* (1899); *The Theory of Business Enterprise* (1904); *The Instinct of Workmanship* (1915); *Imperial Germany and the Industrial Revolution* (1915); *The Nature of Peace* (1917); *The Vested Interests* (1919); *The Engineers and the Price System* (1921); and *Absentee Ownership* (1923).

His criticisms of economics are chiefly directed against the premises from which, he claims, most economic theory is deduced. Granted these, he admits a certain degree of respect for the logical systems the economists have built up, but their premises he cannot grant. Indeed, he regards them as entirely untenable. Those of the classical school, he thought, were based upon hedonistic psychology and the conviction "that there is a meliorative trend in the course of events." Modern psychology, he thought, has destroyed hedonism and the tenet of a meliorative trend, which was probably theological in its origin, and was transformed by Bentham and the Utilitarians into the view that the results of the operation of natural law are right and good. This view in turn was shattered by the undermining of the natural-law philosophy. Accepting the hedonistic view of human nature, the classical economists created the "economic man," assumed freedom of enterprise, competition, and private ownership, and built up their science as a logical deduction from these premises.

²⁴ For an excellent appraisal of Veblen's work and influence see Paul T. Homan's *Contemporary Economic Thought* (New York: Harper & Brothers, 1928), pp. 105 sq.

The efforts of the post-classical economists to correct the defects of the classicists Veblen regards as entirely unsuccessful. The marginal utility theorists he treated with impatience, if not with contempt; and, while he professed a degree of admiration for Marshall, he regarded his effort to reconstruct the science as, all things considered, a failure. Marx, the other Socialists, and the Historical School, he thought, have succeeded no better. The field is, therefore, clear for new constructive work along new lines, and to this Veblen devoted himself.

One of the basic ideas upon which he built is a conception of human nature in accordance with which man is regarded as a creature of instincts which he has acquired in substantially the same manner that the other higher animals acquired theirs, namely, chiefly through heredity and the influence of environment, especially physical environment. These instincts "determine the ends and aims of his life." The intelligence and rationality with which he is endowed have a part "in the provision of ways and means," but only a part, since even here "tradition" and inherited "habits of thought" play the leading rôle.

Guided and mainly determined by these instincts, the actions of individuals and groups become habitual, and out of them develop institutions. Those actions that result from man's efforts to utilize the physical environment for the satisfaction of his material wants result in economic institutions, which, according to Veblen, should constitute the subject-matter of economics.

In his various writings Veblen himself presented a theory of the process of development of economic institutions through the "savage," the "barbarian," and the "handicraft" stages into the "machine" age in which we live. In explaining this process he made use of all the pertinent sources of knowledge, especially psychology, anthropology, and the history of thought and culture, and indulged in a number of generalizations and theories. His analysis has to do chiefly with institutions resulting from the ownership of property and with pecuniary relations and technological processes and methods. He was very critical of the characteristic economic institutions of the present day and looked forward to a radical change in them, though he was careful not to assume the rôle of prophet.

It is the prospect of a new kind of economic science to be built up through the study of the development of social institutions, to which he pointed the way in the constructive parts of his work, as well as his destructive criticism, that have attracted the young econ-

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omists who have been unable to find their way out of the confusion resulting from the conflicting views of present-day devotees of the science and the criticisms of past and present theory in which they have so freely indulged.

C. STATISTICAL ECONOMICS

A variant of institutional economics—perhaps it should be regarded as a phase or subclass—is represented by a group of statisticians in the United States who look to statistics as the chief means of reconstructing or renovating economics. They are quite as critical of other devotees of the science, past and present, as are the other adherents of the institutional group and share with these their general point of view, including their conception of human nature, of the origin and development of institutions, and of the proper goal and methods of the science. They differ simply, if at all, in their faith in statistics as a tool and in their belief that the generalizations which statistics make possible will constitute the greater part, if not the whole, of the economic theory of the future.

The leader of this group is Wesley C. Mitchell, professor of economics at Columbia University and director of research of the National Bureau of Economic Research. His chief publications are *A History of the Greenbacks* (1903); *Gold, Prices, and Wages under the Greenback Standard* (1908); and *Business Cycles* (first edition, 1913; revised edition, Volume I, 1927). His general views on the nature, scope, and methods of economics have been expressed in a number of articles, noteworthy among which are "Quantitative Analysis in Economic Theory," *American Economic Review*, 1925; "Human Behavior and Economics," *Quarterly Journal of Economics*, 1914; "The Rôle of Money in Economic Theory," *American Economic Review*, 1916; and "The Prospects of Economics," published in 1924 with a number of other articles by other authors in a book entitled *The Trend of Economics*.²⁵

Professor Mitchell is very diplomatic in the expression of his views and has frequently proclaimed his belief in the necessity and utility of economic theory, but it is quite obvious that he has very little, if any, confidence in any kind of theory that has yet been developed—except possibly that of the institutional group, which is as yet only in a tentative, formative stage—and great faith in the ability of

²⁵ Edited by Rexford Guy Tugwell and published by Alfred A. Knopf, New York, 1924.

statisticians to supply a kind of theory which will be more valuable than any at present available.

The characteristic features of the new kind of theory to which Professor Mitchell looks forward and how it will differ from the older type he pointed out in his article "Quantitative Analysis in Economic Theory." He there says that he does not expect from statistics what some of the older economists, especially Marshall, hoped for, namely a verification and complementing of the older theory. The problems which the older theorists worked on he does not consider capable of either verification or disproof by statistical methods. What statisticians will do, he thinks, is to formulate new and different problems which are capable of being solved by quantitative methods; the older problems "will drop out of sight." "If my forecast is valid," he says,²⁶ "our whole apparatus of reasoning on the basis of utilities and disutilities, or motives, or choices, in the individual economy, will drop out of sight in the work of quantitative analysts, going the way of the static state. The 'psychological' element in the work of these men will consist mainly of objective analysis of the economic behavior of groups. Motives will not be disregarded, but they will be treated as problems requiring study, instead of being taken for granted as constituting explanations."

While he thinks the content of the new quantitative economics can at present only be surmised, he ventures to suggest some of the problems it will attack, one of them being "the relation between business and industry, between making money and making goods, between the pecuniary and the technological phases of economic life," a problem he thinks the "qualitative analysis" of the past and present has "sadly slurred over." As some of the topics which quantitative economists will concern themselves with in working out this problem he specifies "the economic serviceability of advertising, the reaction of an unstable price level upon production, the effect of various systems of public regulation upon the services rendered by public utilities," and he predicts that "investigations of this type will broaden out into a constructive criticism of that dominant complex of institutions known as the money economy—a constructive criticism which may guide the efforts of our children to make that marvelously flexible form of organization 'better fitted to their needs.'"²⁷

Professor Mitchell's adherence to the group which we have described

²⁶ *Amer. Econ. Rev.*, March, 1925, p. 5.

²⁷ *Ibid.*, pp. 7 and 8.

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as Institutionalists is indicated by his predilection for institutional problems, because "institutions standardize behavior, and thereby facilitate statistical procedure."²⁸

With the study of institutional problems he thinks "the fundamental issue of welfare is inextricably involved," and here, he says, "quantitative analysis promises . . . to increase the range of objective criteria by which we judge welfare and to study the variations of these criteria in relation to each other." The statistician's "help in measuring objective costs and objective results is," he thinks, "indispensable to convert society's blind fumbling for happiness into an intelligent process of experimentation."

This experimentation, he thinks, will concern itself with "group behavior"; and he thinks it "conceivable that the tentative experimenting of the present day may develop into the most absorbing activity of economists in the future," in which case he predicts that "the reflex influence upon economic theory will be more radical than any we can expect from the quantitative analysis of ordinary behavior records."²⁹

Professor Mitchell summarizes his argument as follows³⁰: "The increase of statistical data, the improvement of statistical technique, and the endowment of social research are enabling economists to make a larger use of quantitative analysis; in preparing for their work, the quantitative theorists usually find it necessary to formulate the problems in a way different from that adopted by qualitative theorists; this technical necessity of restating problems promises to bring about radical changes in economic theory, in particular to make the treatment of behavior more objective, to emphasize the importance of institutions, and to promote the development of an experimental technique."

His expectation that the theoretical outcome of these quantitative studies will vary widely from existing theory, in spite of the fact that in the science of physics the use of quantitative methods "was found to yield results in many physical problems which corresponded closely to results attained in mechanical lines," is based upon the following considerations³¹: "First, the cases summed up in our statistics seldom if ever approach in number the millions of millions of molecules, or atoms, or electrons of the physicist. Second, the units in economic

²⁸ *Amer. Econ. Rev.*, p. 8.

²⁹ *Ibid.*, p. 9.

³⁰ *Ibid.*

³¹ *Ibid.*, p. 11.

aggregates are less similar than the molecules or atoms of a given element. Third, we cannot approach closely the isolation practices of the laboratory. For these reasons elements of variety, of uncertainty, of imperfect approximation are more prominent in the statistical work of the social sciences than in the statistical work of the natural sciences. And because our statistical results are so marked by these imperfections they do not approach so closely to the results of our reasoning on the basis of assumed premises. Hence the development of statistical methods may be expected to make more radical changes in economic than it makes in physical theory."

The conclusion that seems to follow from the statement just quoted—namely, that in view of the necessary imperfections of the results obtained by statistical methods, economists cannot safely abandon the qualitative method or disregard its results—does not appear to Professor Mitchell to be valid because "the mechanical type of speculation [the phrase used by Professor Mitchell to describe what he also calls the 'qualitative method'] works with the notions of sameness, of certainty, of invariant laws" which "do not fit the phenomena closely."³² The phenomena here referred to are those with which statistics deal and only with which statistics can deal. Does it follow that there are not other phenomena with which statistics cannot deal and which are worthy of consideration? Does it follow, as Professor Mitchell seems to think, that the results of the qualitative method are cruder than those of the statistical and less worthy of credence, that they must be abandoned whenever they do not accord with the results of the latter and that the qualitative method is only or chiefly useful in fields which statistics have not yet entered or cannot enter as a means of obtaining crude, first approximations to be later set aside in order to give way to the more accurate results of the statistical method? His faith in statistics is indeed sublime, but is it justified by the results so far attained or likely to be attained in the future in view of the limitations of the method itself?

³² *Ibid.*

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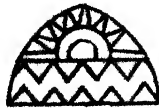
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